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Giftedness Perceptions and Practices of Teachers in Lithuania

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Thesis submitted in partial fulfilment
to satisfy requirements of Oxford Brookes University
for the degree of Doctor of Philosophy

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Disclaimer

I declare that no material contained in the thesis has been used in any other submission for an academic award.

I declare that in preparing this thesis all sources used have been acknowledged therein.

Monita R. Leavitt
June 2009

Abstract

In the context of political and cultural educational change, this research examined how a professional development programme in gifted education was effective in changing the perceptions and practices of Lithuanian teachers to utilise more comprehensive criteria for the identification of gifted children. The research addressed two main research questions:

(1) How have the perceptions of giftedness changed for Lithuanian teachers following a professional development programme in gifted education at Kaunas Technological University?

(2) How did the teachers at a Lithuanian basic school who attended the professional development implement a gifted student identification procedure at their school?

The objective of the professional development programme was for Lithuanian teachers to collaborate on a definition and list of characteristics of giftedness in order to design a gifted student identification process. Qualitative evidence for perceptions of giftedness, gathered from pre-and post-surveys, interviews and questionnaires, indicated that these Lithuanian teachers changed their thinking about giftedness and the identification of gifted learners. *Mind Mapping* was used to illustrate these conceptual and thematic changes. *NVivo* was then employed to validate the findings, analyse and code the data. Ninety one percent of Lithuanian teachers changed their thinking about giftedness after the professional development programme.

The second study used Fullan's Four Stage Model of Educational Change to analyse the change process at a case study school. The case study school teachers who attended the professional development implemented a gifted student identification process. Qualitative methodologies involved observations, discussions, interviews, and study of written records and documentation. Journaling, audio and videotaping were used to record information. The case study school screening committee identified 26% of pupils as 'gifted' from parent-, teacher-, peer-, and self-nomination. Teachers said that they felt empowered to differentiate the curriculum for gifted pupils at their school.

This research presents one of the first North American perspectives on gifted education in post-Soviet Lithuania.

I am always doing that which I cannot do in order that I may learn how to do it.

– Pablo Picasso

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This study is dedicated to Lithuanian teachers who, during educational reform, voiced the need for a system to identify one of their nation's most valuable resources, its gifted pupils. This step was not taken alone; rather, it was supported by the affirmation of family, friends, and Lithuanian teachers to whom I owe a deep gratitude for their help and inspiration.

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Chapter 1

Thesis Introduction

We learn for as long as we live.

-Lithuanian proverb

1.1 Introduction

This thesis reports research on the changes in perceptions of and practices in gifted education of Lithuanian teachers following a North American intervention of professional development.

The research involves two conceptual themes. The first theme concerns the change in perceptions of giftedness originally held by Lithuanian teachers. This theme underlies the first research study that arose from a programme of professional development which presented a North American pedagogical view of giftedness to ninety-three teachers from thirty-three schools in the Kaunas region. The second theme concerns how teachers from a Lithuanian basic school who attended the professional development at Kaunas Technological University implemented a gifted identification process at their school (Case Study School). It underlies an analysis of the influences of political changes in the Lithuanian education system as well as an analysis of the implementation of Lithuanian teachers' gifted educational practices. These two themes are interwoven throughout the thesis.

Chapter 1 presents a historical overview of education in Lithuania, the rationale for the research, and an outline of the thesis chapter structure.

1.2 Rationale of this Research

Since 1990, when Lithuania gained its independence from the former Soviet Union, there have been widespread educational reforms. Despite these reforms, as outlined in Chapters 1 and 2, neither a culturally reliable definition of giftedness nor a national identification procedure existed. Furthermore, professional development addressing the special social, emotional, and academic needs of gifted children was not available. There was no free provision of specialised educational programmes for gifted learners

in Lithuanian basic schools (Grades 1-9). Although specialised secondary schools (*gymnasia*) offered a rigorous curriculum for some teacher-nominated pupils, many families could not take advantage of this opportunity because of the high cost of tuition.

As of 2002, the question of how to identify gifted pupils in Lithuania was still unresolved. Consequently, the research presented in this thesis contributed to the development of a national system for identifying and educating gifted pupils. As a former Soviet Republic, Lithuania had not been exposed to Western pedagogy. The research reported here began when the researcher responded to an invitation by Kaunas Technological University, and in January 2003, delivered a seminar on the identification and education of gifted children with an emphasis on using the precepts of the Renzulli Enrichment Triad Model (Renzulli, 1977) as the most reasonable model, given the history of education in Lithuania, for providing for the gifts and talents of all children in Lithuanian classrooms.

1.3 General Historical Context

To meet the mandated requirements for becoming a member of both the North Atlantic Treaty Organisation (NATO) and the European Union (EU) in 2004, and to become proactive in the development of a modern educational system, the former Soviet Republic of Lithuania had to shed a legacy of 800 years of subjugation under different rulers. Lithuania's existence can be attributed to the country's resistance to punitive campaigns, executions, and deportations.

Dating back to the first and second centuries B.C.E., Baltic tribes inhabited the territory. Lithuania's name was first mentioned in a written text in the *Kvedlinburgh Chronicle* of 1009 AD (Phillimore & Kiely, 2006). The state of Lithuania was established in 1236 when Duke Mindaugas defeated the Livonian Knights at the Battle of Saule and united local chieftains. The day that Duke Mindaugas was crowned King of Lithuania is celebrated as Lithuanian Statehood Day, 6 July 1253.

Lithuania converted to Christianity in 1387, which was fifty-two years after Grand Duke Gediminas forged an alliance with Poland by marrying his daughter to the son of the Polish king. In 1397, the first school opened in the capital of Vilnius (*Vilna*).

By 1430, the country's borders extended from the Baltic coast to the Black Sea. After the Battle of Zalgiris in 1569, Lithuania and Poland joined forces to defeat the Teutonic Order and establish the Lubin Union of a Polish-Lithuanian State (Phillimore & Kiely, 2006). Only by merging with Poland was the country able to establish a record of historical eminence.

The 16th century was a renaissance period for Lithuania. In 1539, the first post-secondary college was established in Vilnius. After years of domination, in 1547 Martynas Mazvydas authored *Katekizmas*, the first book published in the Lithuanian language (Godon et al., 2004). It was not until 1569 that the Polish-Lithuanian Commonwealth came into existence. The first Constitution of the Polish-Lithuanian Commonwealth was proclaimed nearly two hundred years later (1791). Shortly afterwards in 1793, the Education Commission was established. This organisation was a predecessor of the current Ministry of Education and Science.

In 1795, following the third division of the Lithuanian-Polish Commonwealth, Lithuania was annexed by the Tsar, and Russia seized control. During this time period, an attempt was made to denationalise the country by suppressing the Lithuanian language. The use of Latin characters was prohibited, and the Cyrillic alphabet was enforced. Stepsis (2004) reports that Lithuanian books and periodicals had to be published in neighbouring countries and then secretly brought to the Lithuanian villages and towns by book-carriers (*knygneðiai*). If caught by government officials, the book-carriers were severely persecuted and punished.

Native Lithuanian art and music did not develop in the 18th and 19th centuries because of the social and historical situation of the Russification of Lithuania (Nakas, 1974, as cited in Rackauskas, 1974). In 1831, two hundred and fifty-two years after its establishment, Vilnius University was closed down, as were Catholic churches, which were converted to Russian-Orthodox (Phillimore & Kiely, 2006). The thirty years that followed were marked by uprisings against the Tsarist government, and serfdom was not abolished until 1861.

The first Lithuanian newspapers, *Ausra* and *Varpas*, were published in Prussia from 1880-1886 and then again from 1889-1905. They were smuggled into Lithuania and

secretly circulated throughout the country. It was not until 1904 that the ban on the Lithuanian press was abolished.

In 1905, a wave of national consciousness began to emerge when Russia was defeated by Japan (Phillimore & Kiely, 2006). This signalled the decline of the Tsarist Empire. In the same year, a ban on the use of the Lithuanian language was removed, and book-carriers became highly respected for having helped save the language and, thus, the national identity (Stepsis, 2004). Secret home schools operating during the Tsar's occupation also helped to preserve the national language (Godon et al., 2004; LaFont, 1998). With the resurgence of a national identity, a highlight of the next four years was the creative works of the famous musician and painter, Mikalojus Konstantinas Ciurlionis.

During the first half of the 20th century, the Lithuanian culture attracted writers and artists, all of whom expressed their primary cultural identity in their work. In literature, Lithuanian writers had been strongly influenced by Polish, Russian, and German authors. Polish was the mother-tongue of most of the Lithuanian intelligentsia, and Lithuanian was their second language (Lafont, 1998). With the years of occupation and fighting during World War II, the number of intelligentsia in Lithuania reduced. Because Lithuania was an agrarian society, most people worked on farms. Literature demanded higher education and time for authors to compose in an appropriate social environment. Salomeja Neris and I. Simonaityte, both female authors, were among the few who wrote successfully during this period. Because the Lithuanian culture was diminished during times of occupation, there was still little support for the Lithuanian people's gifts and talents. In spite of this lack of support, some eminent musicians and authors emerged.

In 1919, Juozas Naujalis (1869-1934) organised a private music school, known as the State Conservatory, in the newly independent country. His compositions, along with those of Sasnauskas (1867-1916), incorporated Lithuanian folk elements in a Western classical fashion. Another composer, Jurgis Karnavicius (1884-1941), composed the first Lithuanian national opera, *Grazina*, in 1933 (Nakas, 1974, as cited in Rackauskas, 1974). Composers such as Jeronimas Kacinskis (1907) and Vytautas Bacevicius (1905-1970) succeeded in going beyond the national folk melodies to

represent international Western modernism in Lithuanian music (Nakas, 1974, as cited in Rackauskas, 1974).

Krikstopaitis (1991) argues that the history of Lithuanian music can be distinguished among those composers who freely pursued their own musical style in the West and those who remained in Lithuania and accepted the dictates of the Soviet Union. It could be argued that this history of looking to the West for new ideas provided a similar impetus that prompted Kaunas Technological University to invite the researcher to deliver professional development in gifted education.

In 1919 the Polish Army forced the Red Army to retreat from Lithuania. War broke out between the newly-independent countries of Lithuania and Poland. Lithuania's wars in defence of independence against the Bolsheviks, Poles, and the German and Tsarist armies continued until 1923. In the course of these wars, Lithuania lost its capital, Vilnius, which was occupied by Poland in 1920. Kaunas became the new capital of Lithuania. This period prior to the Soviet era can be characterised by three interrelated prominent themes: culture, religion, and national identity (Godon et al., 2004).

During World War I, with the collapse of both the Russian and Germanic Empires, the Baltic people seized the opportunity for freedom. On 16 February 1918, the Council of Lithuania proclaimed the restoration of the country's statehood and, thus, its independence (Harmon, 1990, as cited in Dundzila, 2008). No longer under Russian or Germanic influence, Lithuania made great strides during its brief period of independence. The Lithuanian Senate (*Seimas*) implemented the greatest reforms during 1920-22: it introduced the national currency (*litas*), passed laws that were favourable to the national economy and financial system, and organised radical land reform.

From the early 1920s to World War II, the national-Catholic pedagogy dominated education in Lithuania (Maceina, 1991). The Lithuanian education system was slow to develop, however, because the indigenous Lithuanian population was not competitive with the Jews, Poles, and Germans, who had focused on education within their communities during this time period (Miller-Korpi, 1998). As a result, the educational

gap increased the division between Jews and non-Jews as the rural population migrated to the cities.

The enforced migration and loss of Lithuanian as the national language served to suppress the cultural identity of Lithuania during the Soviet occupation. In Lithuania, as in other Soviet Republics, the school system was destroyed and teachers were physically removed; some teachers were even executed (Godon et al., 2004). The Lithuanian educational renewal that occurred subsequently included the establishment of compulsory primary education and a network of secondary and special schools to eradicate the Tsarist legacy of illiteracy. These initiatives were important to the Lithuanian organisation of a system of separate schools, even though they still remained culturally isolated (Saugeniene, 2003). This was also a time for organising the *gymnasia*, which supported the academic pursuits of gifted children at the secondary level.

The philosophy underpinning the formation of the *gymnasia* was based on the prevailing Russian political ideology of that period. During the Russian occupation, one of the prominent Russian educational thinkers was Anton Makarenko (1888-1939). Influenced by Marx, Engels, Lenin and Gorky, Makarenko believed in the traditions of collective life or *vospitanije* (Filonov, 1994). The *vospitanije* was an association of people with common purposes and activities that interdependently supported a particular structure of power and responsibility in the context of a communist society. This philosophy stressed the importance of students embracing atheism and the fundamentals of science (Konstantinovas et al., 1978). It reinforced the vision of educating students as 'Soldiers of the Revolution' and viewed the teacher as a tool for the communist party. The censorship and inhibition imposed by the government on teaching, research, and publication sharply contrast with the educational practices in Lithuania before Soviet occupation.

The secret signing of the Molotov-Ribentrop Pact between Stalin and Hitler in 1939 divided Europe and partitioned Poland between the two states (Phillimore & Kiely, 2006). With Poland now the dominating country, only five percent of the population of Vilnius was Lithuanian; the remainders were Catholic Poles and Jewish Poles (Pavlovich, 2006). Yiddish, Polish, and Russian were the languages commonly

spoken. In 1940, the Soviet Union occupied and annexed the three Baltic States: Lithuania, Latvia, and Estonia. Vilnius was restored as the capital of Lithuania and served as the location for Soviet military bases. During the early Stalinist era, the Soviet *gulag* system (Russian Chief Administration of Corrective Labour Camps and Colonies coerced and trained vast numbers of scientists to build nuclear weapons and spacecraft. Any doubt concerning Soviet ideology, or inattention to dogma, led to individual and collective repression.

Lithuania was a republic of the former Soviet Union for approximately forty-seven years during the 20th century (1940-1941 and 1944-1990) with the exception of the German occupation during 1941 to 1944. Lithuania's struggle to maintain its national traditions and freedom of academic thought was the first step taken by the Baltic Republics in their efforts to regain independence and recover intellectual sovereignty. The movement laid the groundwork for the recovery of political, economic, and national independence. Lithuanian philosopher, Stasys Šalkauskis argued Lithuania should not restrict itself to one particular pattern of culture, but rather should embrace, within the limits of its identity and trajectories of consciousness, Germanic, Romantic, and Slavic influences (Donskis, 2007). The more cultures and influences that Lithuania accepted, the more conscious of its own history and culture it became. McLaughlin and Juceviciene (1997) argue that even though Soviet educational thinking and practice had an impact on the Lithuania people, their national consciousness and identity were not erased. However, this argument was not universally accepted.

Pirockinas (1996, as cited in Vitas, 1996) claimed Lithuania's national identity suffered under times of occupation with the suppression of the Lithuanian language. Although not banned from speaking the Lithuanian language, and not obliged to learn Russian during Soviet times, Pirockinas argues Lithuanians experienced career difficulties, and the fear of being called a nationalist prevailed; thus, the Lithuanian language changed because of the population's perception of inequality to Russian, a more powerful language. Coupled with the purposefully controlled and encouraged migration, the Russian language became firmly established.

Pirockinas (1996, as cited in Vitas, 1996) believes the Soviets realised that if Lithuanian national linguistics was allowed to develop, the educational system and literature would centre on the national language, and the aim of Soviet assimilation would recede. He further argues that although Lithuanian teachers and professors maintained the traditions of their natural culture and national consciousness, because of the additional constraints, Lithuania developed a weak basis for its cultural identity.

Some Lithuanians managed to maintain certain parts of their traditions and avoided complicity with Soviet educational thought (Godon et al., 2004). A distinction can be made between social education, a key element in the Lithuanian tradition of pedagogy, and the Soviet *vospitanije*. During times of occupation, many Lithuanians, including those who were intellectuals, artists, writers, and composers, escaped to the West and formed political, cultural, and public organisations in support of their country and cultural identity. Krikstopaitis (1991) reports after 1941, Lithuanian war-time documents revealed the deportation of the intellectuals to Siberia and the escape of the surviving intelligentsia to the West. Lithuanians who remained in exile could not return home until four decades later (Krikstopaitis, 1991). Subsequently, due to these major upheavals, the researcher believes the Lithuanian people had no time to pay attention to the educational needs of gifted pupils in Lithuanian classrooms. It can be inferred that war-time deportation had an outcome similar to what Juceviciene et al. (2004) report as a 'brain drain' in the early 21st century when most of Lithuania's gifted and talented youth left the country for opportunities abroad. Consequently, the researcher argues, it was important for Lithuanian teachers to study Western (i.e., North American) models of gifted education so they could find incentives to motivate their students to learn, and inspire them to seek jobs, in their own country. Moreover, in this way could teachers address the needs of the gifted for which identification of gifted and talented had to be first addressed.

1.4 Contemporary History of Lithuanian Education

During its independence of only twenty-two years in the 20th century, Lithuania founded eight university-level institutions. One of the institutions, organised in 1941, was the Institute for Lithuanian Studies, which later became the Lithuanian Academy of Science. The Academy supported both the country's autonomy and its secession from the Soviet Union because social and humanitarian studies were more suppressed

than the sciences, and studies related to the Lithuanian culture were eliminated (Krikstopaitis, 1991). The process of socialisation eventually failed at the same time Red Terror efforts to eliminate any elements of autonomy and destroy any prospects for science in Lithuania also continued. The country, however, maintained its autonomy of managing its industry and infrastructure but lost its power to regulate the economy and science.

The Academy of Science, under pressure from Moscow, became a government office and monopolised the greater part of the Republic's science. All intellectual activity, including scientific inquiry, was regulated and manipulated through Soviet centralization, and original ideas that once connected schools of higher education and science institutions were now lost (Krikstopaitis, 1991). The Academy replaced scientists who vanished in the war with a new generation, many of whom became prominent in fields such as mathematics, physics, and chemistry. Krikstopaitis (1991) reports that the Academy represented 2,000 scientists and scholars in Lithuania who lost their status as creative personalities and became ordinary employees when the former Soviet Union experienced an economic crisis and could not finance scientific equipment. Importantly, however, creativity retained its value in the Lithuanian culture, as indicated in a personal conversation with a Vilnius University Physics Professor: (**Note.** *The researcher has anglicised all the conversations and interviews of Lithuanians in the thesis*).

During Soviet times, Lithuania identified students who were gifted in physics and mathematics, but not in other subjects. Today, I can train any gifted student, but because our university's funding was cut in half by the government, our students now must fund their own education.

I helped to develop the computer scanner in 1968, long before it was marketed, and now work on a project involving 'lifetime' lights on airplanes that use little energy. This project has great implications for cancer research. At a research conference at Stanford University, California, I was asked if I understood what was being discussed during a laboratory demonstration. I replied by asking one of the scientists what problems they had with the equipment. He said that they had no problems, but when the scientists realised what I knew, they confessed there had been problems they had not been able to solve. The Stanford scientist asked me how, during Soviet times, I could work to find solutions to such problems without the materials and resources that were available to scientists in the West. I replied that because we had limited

access, we had to work harder and smarter. We could run experiments only after we had first figured out how to make them work.
(Personal Conversation. Vilnius University Physics Professor.
20 February 2005)

In 1972, a Lithuanian underground publication, *Chronicles of the Catholic Church of Lithuania*, circulated abroad proclaiming that freedom of speech was taken from Lithuania. Harmon (1990, as cited in Dundzila, 2008) reports that spontaneous demonstrations to protest the Soviet occupation occurred in Kaunas on 14 May 1972, and resulted in the arrest of approximately 400 people. A public protest rally, composed of more than 200,000 people, occurred in Vilnius on 23 August 1988. On 23 August 1989, more than two million Lithuanians, Latvians, and Estonians joined hands to form a human chain on the Baltic (Harmon, 1990, as cited in Dundzila, 2008). This demonstration of unity was televised and viewed around the world.

On 11 March 1990, Lithuania became the first of the Soviet Republics to declare its independence. Soviet forces unsuccessfully tried to suppress this secession during an incident at the TV Tower in the capital city of Vilnius, which resulted in the death of several civilians. Moscow refused to recognise Lithuania's proclamation until September of 1991. When it did, as a country whose cultural heritage was reflected in a democratic form of government, Lithuania restructured its economy and led the way for other former Soviet Republics to integrate into Western European institutions by becoming a member of NATO and of the EU in the spring of 2004 (Budiene, 2001; and *CIA World Fact Book*, 2007).

The 1990s national upheaval incorporated widespread educational change that extended throughout the country. Increased demands were placed upon Lithuania to reform its education system as a 'required' precondition for European Union membership (Budiene, 2001). A balance between modernisation and national tradition was needed (Jonikova, 1998). Jonikova (1998) argues that the country was in need of a new 21st century education model to deliver the educational change. What had worked for the country under communism was now not appropriate as Lithuania transitioned to becoming a democracy [Chapter 2]. A refocusing of Lithuanian educational goals and resources was identified, including how the global trend of specialisation in the work force impacted cultural progress, scientific

innovation, and economic prosperity of Lithuania. This thesis examines some of these changes and analyses current educational practices of Lithuanian teachers committed to providing a quality and equitable education for gifted pupils.

Since 2000, Lithuania recognised the importance of the role gifted education could play in providing an appropriate education for gifted children, the country's potential future leaders. Through the funding of research, and the interest and support the Ministry of Education and Science had shown, the country was ready to develop a system-wide gifted identification process. Nevertheless, teacher training, student and teacher incentives, and adequate materials and resources remained as issues. How successfully teachers could identify and educate a gifted pupil in the country's changing economy was yet to be seen. Moreover, for Lithuania to benefit from any international input concerning gifted education, assistance from Western nations would be needed.

1.5 History and Background of School Education in Lithuania

Lithuania, one of the three Baltic nations, is a country of 65,200 sq. km., slightly larger than the State of West Virginia. It is bordered by Latvia, Belarus, Poland, Russia (Kaliningrad), and the Baltic Sea. The population in 2007 was estimated at 3,575,439, reduced from 3,704,000 in 1998 (Eurydice, 2001). Of the country's population, 67% reside in urban areas, 33% live in the country (*CIA World Fact Book*, 2007). There are more than twenty religious denominations registered in Lithuania, and of these, nine are considered traditional religious communities: Roman Catholics, the Church of Old Rite, the Orthodox Church, Evangelical Lutherans, Evangelical Reformists, Greek Catholics, Moslems, Jews, and Karaites. Roman Catholics comprise 90% of Lithuania's religious population (Eurydice, 2001). The ethnic composition reflects the various languages which are spoken, as determined by the 2001 census: 82% Lithuanian, 8% Russian, 5.6% Polish, and 4.4% others that include Ukrainians, Byelorussians, Jews, and Tartars (*CIA World Fact Book*, 2007; *Lithuania in the World*, 2005). Lithuanian is the country's official language, but English is quickly replacing Russian and German as the first foreign language and the predominant second language to be taught in schools.

National minorities in Lithuania were permitted to teach their children their native tongue and history to nurture their culture. In 1997-1998, a language of instruction other than Lithuanian was in use at 232 schools in ten towns and twenty-three municipal districts. These schools taught 69,777 students, which reflected 12.8% of all students in the country. According to the 1992 Constitution of the Republic of Lithuania, although Lithuanian is the state language, the national minorities in Lithuania had the right to foster their languages (Article 37 of the Constitution and Article 1, Law on National - Ethnic - Minorities, 1989). National minorities in Lithuania had the right to conduct lessons in their schools using their native language (Article 30.2 of the Law on the Amendment of the Law on Education). In 2002-2003, according to the Ministry of Education and Science in Lithuania, the number of schools in which the language of instruction was Lithuanian increased to 202 (European Commission, 2006).

Zhilin (2000) reports that the Lithuania education system adhered to the Soviet dictate that each pupil should be taught well. Before the Communist Revolution in 1917, gifted and talented children were sent to specialty schools in Moscow and St. Petersburg for the arts, ballet, and music (Grigorenko, 2000, as cited in Heller et al., 2000). The Soviet system favoured the Russian system and was reliant upon teachers to deliver a quality education to the brightest students. Only the upper seven percent of children, mainly from the aristocracy, were educated in a *gymnasium* system of higher education to prepare students for academic professions (Shaunessy, 2001).

As a carry-over from Soviet times, the term 'gifted' was avoided, and an identification process was non-existent. Even though gifted and talented children were sent to specialty schools in Moscow and St. Petersburg for the arts, ballet, and music, this transfer did not happen with mathematics and science specialty schools until 1959 (Grigorenko, 2000, as cited in Heller et al., 2000). At this time of Soviet gifted education, mathematics and science were emphasised only in the best schools. Little attention was paid to the humanities. Propaganda in the Soviet Union during the 1930s had also valued good education and encouraged children to become heroes: scientists and engineers.

Grigorenko (2000, as cited in Heller et al., 2000) argues that gifted education was organised primarily to promote the good of the whole society, secondly to promote progress, and thirdly to promote the development of the individual. Gifted children competed in a network of competitions, e.g., Olympiad contests, to exhibit their high level of talents and skills and capitalise on the nation's intellectual resources of Soviet society. Another possible limitation for quality provision was that because Lithuanian schools reflected the communist philosophy of focusing on rote learning and paid little attention to individualism, passive learners were produced (Jakubauskas, 2000; and Budiene, 2001). This thinking is in contrast to Lithuania's educational goal today of schools developing educated, independent individuals who actively participate, i.e., an 'active personality.' The development of a student's 'active personality,' was obstructed by the Soviets, and a Lithuanian student was treated as an object of education (Grinceviciene, 1997). The work of Jonas Lauzikas depicted the importance of collaboration among teachers and students, and emphasised the need to view each pupil as an individual (Lauzikas, 1981; and Vaitkevicius, 1993). Developing an active, as opposed to a passive, learner became the goal of educational change in Lithuania (Grinceviciene, 1997).

Although the Soviet-Russian system identified gifted children for their high achievement at an early age, it offered little social and emotional support in the boarding school environment and rarely consulted parents in the decision-making process (Grigorenko, 2000, as cited in Heller et al., 2000). Gifted children received mentoring in a particular area, which afforded them the best education, including working with better teachers and/or university professors who encouraged their high achievement and prepared them for more desirable jobs to which they later were assigned. The Russian system enabled gifted children to perform much better than their peers.

It can be concluded that smart children who could withstand the intensive courses and living conditions away from home did receive a very good academic education. The Russian mentorship model continues today with the establishment of the National Student Academy in Vilnius (2007), a boarding school that attracts gifted children throughout the country. Although the mentoring approach works well for a limited

number of highly gifted children, it does not attempt to provide for the gifted children left behind in the regular classroom.

Since its independence in 1990, however, the Lithuanian education system and economy moved away from such philosophies toward one of democracy in a market-oriented society (Jakubauskas, 2000). Lithuania, similar to other developing countries with transitional economies, was at risk of being marginalized in the competitive global market. Thus, it was important for Lithuania's educational system to be prepared to support the acquisition and application of knowledge (World Bank, 2000).

The challenge for Lithuania as it emerged was not only to have an effective and uniform education system, but also to receive the necessary support and assistance from Western allies to assist the process of democratic reform (Williams et al., 1997). Sadlack (1991) recommends that Western governments make attempts to help former Soviet countries with the democratic reform process by active participation in educational training and development. Given its recent history as a republic of the former Soviet Union, the question arose of how Lithuania would meet its educational aims of quality and availability for all students, including the gifted, to prepare for a future of life-long learners in a globally competitive economy.

1.6 Post-Soviet Gifted Education in Lithuania

After the effects of its political and educational reform in Lithuania, the need arose for a national identification process to identify Lithuania's gifted pupils. Williams et al. (1997) argue that the exceptional student was adrift and if not brought quickly into the mainstream of education, this generation of gifted learners might have been irretrievably lost. If the trend continued with gifted learners emigrating to pursue careers or study in other countries of the European Union, Lithuania would have continued to experience a 'brain drain' (Juceviciene et al., 2004).

The Ministry of Education and Science supported the principle that to neglect one's gifted children is to make it impossible for a country to compete in a global economy (Budiene, 2001). In 2001, an attempt was made by the Lithuanian Ministry of Education and Science to support research in gifted education, but the research was

discontinued because of a deficit in funding (Personal Conversation. Narkeviciene, 14 August 2002).

In view of this, the United Nations Development Programme (Rimkute & Velosciuk, 2001) argued that young people who are integrated into Lithuanian society are the most active from both a political view and as part of the labour force, and should be encouraged to participate in the decision-making processes to address their global societal problems. Thus, the national Lithuanian commitment to gifted students becomes essential for the future leadership of the country.

With its independence, Lithuania's new educational legislation became a priority for the Senate or *Seimas* (Eurydice, 2001). In 1991, Lithuania adopted the Law on Education, which established the basic structure, activities and governing of its education system. The Law on Education reflected change in the aims, content, and structure of the educational system and also implied changes in the teaching methodology and textbook preparation within an overall structural reform for creating a more flexible secondary educational system (Eurydice, 2001).

The new structure for school education in Lithuania is as follows:

- Pre-school Education
- Compulsory Education/training:
 1. *Pradine Mokykla*, Primary Education, (ages 6/7 to 9/10);
 2. *Pagrindinė Mokykla*, General Lower Secondary Education, (ages 9/10 to 16/17);
 3. *Gimnazija*, General Lower Secondary, (ages 14/15 to 16/17);
 4. *Profesinė Mokykla*, Vocational Lower Secondary (ages 14/15 to 16/17);
 5. *Jaunimo Mokykla*, General Lower Secondary (ages 11/12 to 22), and
 6. *Internatinė Mokykla*, General Lower Secondary, (ages 9/10 to 16/17).

In 1997-1998 there were 1,935 students among every 10,000 inhabitants in all educational institutions: 1,527 students in general education, 146 students in vocational schools, 81 in vocational colleges, and 181 in higher education or university institutions (Eurydice, 2001: 1). Compulsory education was supported in Lithuania by Article 19 of the Law on Education of the Republic of Lithuania. The Law on Education granted an education to all public and private school pupils up to and including the age of sixteen.

Today, compulsory education in Lithuania consists of four years of primary school, first to fourth grades for a six or seven-year-old. This is followed by six years of basic school, for a total of ten years. Since it is part of the compulsory education system, primary school education is free (Budiene, 2001). The core curriculum includes moral education, which requires parents choose either religion or ethics: the Lithuanian language; perception and understanding of the world; mathematics; fine arts and crafts; music; physical training, and one foreign language, either in English, German or French.

Figure 1.1 The Educational Structure in Lithuania (Eurydice (2001))

(Removed for copyright reasons)

Pupils, ages ten to sixteen, continue to attend the basic school (*pagrindinė mokykla*) for their lower secondary education in Grades 5-9 (soon to be 10). Upon completion of lower secondary school, pupils are awarded a basic school graduate ('school leaver') certificate from the National Centre of Examinations. The main goal of upper secondary education is to enable pupils to enter any level of higher education. School leavers can pursue their studies at one of the following institutions: secondary schools, *gymnasium* schools, vocational schools, as well as some boarding and special education schools. Presently, with the change from the five to six-year basic school, upper secondary education is offered in the last three years of schooling (Grades 10-12) and is free in public educational institutions. *Gymnasias* maintain their separate admissions criteria and tuition fees and admit pupils for the last four years of secondary education.

Gymnasias traditionally offer a more advanced level of academics and seek to enrol pupils of high performance, maturity, and motivation. Countries in close proximity to Lithuania that also provide *gymnasium* schools are: Bulgaria, Croatia, the Czech Republic, Estonia, Finland, Hungary, Latvia, Poland, Russia, Slovakia, Slovenia, Sweden, Switzerland, and the Ukraine. Depending on the particular country, the number of years in *gymnasium* schools varies. After nine years of primary schools, Latvia, Estonia, and Poland offer three years whereas Slovakia and Slovenia offer four years, which start at age fourteen or fifteen and end with the receipt of a diploma or *Matura* (NationMaster, 2003). In Croatia, most university faculties accept students from secondary schools that last four years, thus creating a preferred choice for those pupils who seek a university diploma.

Budiene (2001) states that Lithuania was in the first stage of simplifying its triple upper secondary system of general secondary schools, *gymnasias*, and professional secondary into a dual one. All upper secondary schools propose to become *gymnasias* by 2010 and will offer: (1) comprehensive academic *gymnasias*, with profiles in the humanities, sciences, technology and arts, and (2) non-academic technical *gymnasias* with profiles in the areas of technology and arts.

These national systematic changes were driven by *The General Concept of Education Reform in Lithuania*, published and adopted in 1992 (Eurydice, 2001). This

document became part of the country's first post-communist constitution. Its philosophy was based upon European cultural values: the absolute value of the individual, neighbourly love, innate equality among men, freedom of conscience, tolerance, and the affirmation of democratic social relations (Budiene, 2001). The main principles of Lithuanian education were expressed in this document as humanism, democracy, renewal, and commitment to Lithuanian culture with the preservation of its identity and historic continuity (Eurydice, 2001). The document clearly provided for the fundamental guidelines to implement reform by shaping its governance and educational structure and focused upon the values of democracy, humanism, and tolerance to promote individual development in independent decision-making skills and professional expertise (Budiene, 2001). These values are in alignment with those countries which are also members of the EU.

With such changes, Lithuania now enters a new stage in which the priority of educational trends and national goals for educational reform is to ensure the quality and availability of education for all children (*Education Improvement Project*, 2002). Even under the best conditions, to ensure quality and equity simultaneously is a formidable challenge, especially to frame the dialogue, policy, and practice regarding schooling for years to come (Goodlad & Goodlad, 2004). Within its new education policy, Lithuania appears to recognise the importance of meeting this challenge to provide its gifted youth with an education that will prepare them for the changing demands of the technological and global society in which they now live.

1.7 Researcher Involvement

To serve Lithuanian teachers and maintain a political threshold for the United States support of re-establishing Lithuania's independence in 1990, the American Professional Partnership for Lithuanian Education (APPLE) was created (APPLE, 2006). The objective of this civic organisation was to raise the ethical awareness of Lithuanian students and teachers and to provide them with a democratic experience. A member of APPLE since 1990, the researcher delivered education courses for teachers throughout Lithuania from 1996-2000. Additionally, the researcher had a background of training teachers and teaching gifted programmes in the United States of America for sixteen years.

Following the first government-funded research project in gifted education in 2002, Kaunas Technological University (KTU) and Kaunas Teachers Centre collaborated on the first pedagogical initiative in gifted education in Lithuania, a professional development programme of six seminars for teachers in the Kaunas region. In 2003, the researcher delivered the fourth seminar of the series, which followed two theoretical lectures by Professor Rost (Germany) and Associate Professor Narkeviciene (KTU). The third presentation was delivered by staff members from the internationally-recognised J. Jablonskis *Gymnasium* School. The fourth was presented by the researcher and introduced Renzulli's Three-Ring Conception of Giftedness Model (1977). This thesis describes and evaluates the change process that followed this presentation.

1.8 Thesis Chapter Structure

Chapter 2 continues with an examination of the Lithuanian educational context, how it changed from Soviet times to the present, and the challenges ahead. Fullan's Four-Stage Model of Educational Change is used as a North American intervention to analyse the non-Western educational reform movement. Fullan's model is then used to examine implications for Lithuanian teachers who serve as change agents in the implementation of a gifted identification process in their schools. The framework analyses structural and systematic change at the micro-level of school and teachers in Lithuania. The implications offer insight into understanding change as a process at a case study school, and are applicable to the macro-level of comparative and international education.

In preparation for the research undertaken, some of the most internationally renowned definitions and models of giftedness are presented in the Chapter 3 literature review. Along with 'giftedness,' 'intelligence' has been a problematic label. Different definitions of intelligence are also presented.

The first research study is detailed in Chapter 4. The researcher provided a professional development programme in gifted education for Lithuanian teachers in the Kaunas region. Pre-and post-surveys were utilized to record the teachers' perceptions of giftedness. *Mind Mapping* (Buzan, 1977) was used to illustrate the conceptual links between these perceptions, and to obtain a preliminary understanding

of the survey results. Data from the surveys was then coded and analysed using the *NVivo* software programme.

Chapter 5 describes results from the implementation of the identification process at an urban basic Lithuanian school from the inception of the professional development programme. The chapter reviews the case study methodology. Data gathered from interviews, classroom observations, and questionnaires are examined within Fullan's Four-Stage Framework of Educational Change to analyse changes in practices of Lithuanian teachers. Implications were noted for the provisions for identified gifted pupils in the regular classroom. A follow-up validity study examines the identification of gifted children in four other Kaunas regional schools.

Chapter 6 presents a research summary, a general overview of the issues emerging from Chapters 3, 4, and 5, and a consideration of the limitations of the two research studies. Implications and recommendations are proposed for the future of gifted education in Lithuania.

Chapter 2

Constructs of Decentralised Educational Change in Lithuania

2.1 Introduction

This chapter analyses changes in both the social and cultural contexts of gifted education in Lithuania. It considers both macro and micro developments and examines changes that took place at the system, school, and individual teacher levels [Chapters 4 and 5]. Specifically, education reform is regarded as described by Fagerlind and Saha (1989) as consecutive change of a country's education system that is influenced by turning points of national education policy.

After *perestroika* and the transition from totalitarian to democratic systems, the once republics of the Soviet Union, now Baltic countries of Lithuania, Estonia, and Latvia, had to reinvent and redefine a cultural model of educational reform (Polyzoi, et al., 2003). No longer forced to survive in environments of unrest and unpredictability, the Baltic people had to adopt significant changes to decentralise the former communist educational infrastructure. Because they could not reconstruct from the extant structure that existed, they encountered the huge tasks of finding, and then mobilising, national and international human and financial resources. Whilst Lithuania and the other republics shared a similar initial phase in the education reform process, because of the uniqueness of each system, each republic had to find its own way to reform. Therefore, these countries' education reform agendas were distinctly different (Polyzoi et al., 2003).

As argued in Chapter 1, Lithuania looked to the West for ideas; thus, it was inevitable that the West would become influential in educational reform towards satisfying the demands of a society moving towards democracy. As an increasingly technological society, Lithuania began to experience more complex demands, not the least of which was individual drive for personal independence. As personal independence became more important, so did the need for communication and collaboration among individuals with similar goals – no more so than in education. Jonikova (1998) argues that to overcome the barriers undermining school reform, the country needed a collaborative education system. However, because Central Eastern European

Countries (CEEC) lagged 30-40 years behind Western Europe, a balance between the advance of modernisation and the retention of national traditions was needed (Jonikova, 1998).

Subsequently, Lithuania's transition process became a historical opportunity to move forward and reject old ways that no longer worked.

Rado (2001: 11) lists three of the most important elements of transition as the legacy of pre-communist and communist periods: (1) the fragile nature of the democratisation process; (2) the dramatic changes in the economic system, and (3) the rapid re-stratification of the societies, i.e., the redefinition of the role of the states and the uncertainty of values. Similar to the other former Soviet Republics, as Lithuania changed from a totalitarian and political system to an open and democratic one, it modified and changed its infrastructure by building a free market economy and by modernising to meet the demands of a technological world. Thus in this thesis, to explore the educational initiatives that professed to contribute to quality improvements in the Lithuanian education system, a flexible and conceptual framework was needed.

Three theoretical models of education management that used empirical studies recognised by CEEC were considered for examining the quality of Lithuania's education reform. These models, known as the Formal Model, the Uncertainty Model, and the Political Model, analysed both the formal structure and the hierarchies in educational institutions and their appropriateness for Lithuania's then current needs. Some analysis is included to illustrate examples of the appropriateness of these models for Lithuania.

Zelvys (2004) introduces the Formal Model as one which focuses on the official structures of an organisation's systemic, bureaucratic, rational, and hierarchical structures. These constructs were fundamental during the centralised, authoritarian system of the former Soviet Union, but, because they revealed a limited understanding of the developments in quality assurance in education, they were deemed inappropriate for present-day Lithuania.

A second model under consideration was the Uncertainty Model (Zelvys, 2004). This model reinforced the uncertainty and unpredictability of organisations during periods

of chaos and radical change. For example, the non-existent system of accreditation and licensing of institutions of higher education led to confusion among teachers who wondered if the courses they took would allow them to become certified in a particular field. Because most of Lithuania's educational reform was planned and, therefore, expected, this model was also perceived as inappropriate (Zelvys, 2004).

The Political Model appeared the most suitable for examining education reform in Lithuania. Zelvys (2004) argues that this model offers a means to detect major changes in the distribution of power and influence in the education system. After *perestroika*, academic leaders in higher education became autonomous and thus more influential in the Lithuanian education system, and without limitations imposed from the outside. In any reform, critical structural changes occur, but because the structures can be weakened by frequent personnel changes which affect the stability of the interest groups, political parties remained the prevalent managerial agency (Zelvys, 2004).

Educational reforms are viewed differently in Western and Central Eastern European Countries. Lithuania's system of educational reform needed a framework that would promote collaboration among political leaders and educational personnel to achieve success. Rado (2001: 30) compares the Western view of 'support of grassroots change' to the CEEC view of reform as a 'top-down implementation of systemic changes.' However, because of the unique characteristics of each system, what worked for one country did not necessarily work for another (Clark et al., 1984; Huberman & Miles, 1984; Fullan, 1999). Thus, solutions that proved effective in Western countries were not necessarily those that would be effective in the CEEC, particularly in Lithuania.

In comparing the Eastern European educational reform pattern with those of Poland, Hungary, and Slovenia, Rado (2001) argues that post-communist reforms are merely a continuation of limited reforms from previous decades. Socialist educational reforms were exclusive top-down approach to change, and the approval of 'experimental programmes' was limited to schools wherein decentralisation and enforced changes in the school structure were regulated by influential professional elite (Rado, 2001: 31). Rado (2001) finds that although government policies of post-communist republics

were implemented with strong conviction, the Ministry in these countries was not necessarily in touch with the realities of the schools.

Because of this disconnect, a combination of top-down, bottom-up models was needed to analyse the educational reform in Lithuania. This new model would embody the philosophies of both the East and the West, and also would encourage collaboration between the Ministry and Lithuanian educators. Because this approach was outlined in Michael Fullan's Four-Stage Model of Educational Change, it was adopted in this thesis to analyse the restructure, reorganisation, and reconceptualisation of Lithuanian educational reform (Fullan 1993; 1994; and 2001).

Michael Fullan, Director of Ontario Institute for Studies in Education (OISE) at the University of Toronto, Canada, witnessed the successful implementation of his model in many countries, including the post-communist Eastern European Republics of Russia, the Czech Republic, Hungary, Romania, and East Germany (Polyzoi et al., 2003). Fullan's Model of the Educational Change Process (1982), to be described more fully in the following Section 2.2, examines educational change as a 'process' rather than an 'event.' Further, it provides a conceptual framework for understanding large-scale educational change in addition to emphasising teacher empowerment through collaboration. The model also provides a framework for understanding change that occurs in the classroom, school, or school district (Fullan, 2001). Therefore, Fullan's model seemed most appropriate to analyse both change in teachers' perceptions of giftedness and for the implementation of a gifted identification process at the school level.

Upon closer examination, it must be noted that neither Fullan's model nor the conceptual frameworks of the Formal, Uncertainty, and Political Models examine the time period prior to *perestroika*. Polyzoi et al. (2003:14) argue that since 1991 the reform in the former Soviet Republics occurred in a relatively short time when compared to change in the United States or Canada; therefore, the 'experience is qualitatively different from the U.S. or Canada, where change occurs within an essentially stable societal context in a linear pattern.' The researcher argues, however, that although Fullan's model does not directly address the revolutionary nature of change, it has value as a beginning step to investigating education reform in

Lithuania. Fullan provides a framework for understanding the transformation of education in contexts of societal change, which can guide thinking and strategic planning (Polyzoi et. al., 2003) that has been used across many countries, including former Soviet Republics. However, as useful as Fullan's model might prove to be, to better explain the dynamics of sudden change typical of CEE Countries after *perestroika*, for future study, it is recommended to also consider Birzea's (1995, as cited in Polyzoi et al., 2003) Four-Stage Model of Educational Transformation: Deconstruction; Stabilisation; Reconstruction, and Counter-Reform.

One reason is provided by the Educational Advisor to the President of Lithuania, Vebraitė (2004: 20) who offers a cautionary summary of the need for educational reform to succeed:

Mere 'production' of a separate elite of students well able to 'parrot' information provided by teachers, who in turn were compelled to 'parrot' information provided for by the State, was inimical to the building of a free society. We [Lithuanians] needed a dynamo of an education system to jump-start a new political and economic reality, a new openness towards our own culture and that of others. In essence, Lithuania had to forge a complex, entirely new education system, rather than just simply adjusting the Soviet single-channel scheme.

The education reform movement highlighted an opportune time to gain legislative support for the quality of education for all Lithuanian children, including the gifted.

2.2 Fullan's Model of Educational Change

A major conceptual framework to understanding any educational reform is laid out by Michael Fullan (1993, 1994; and 2001). Michael Fullan's model shows how the accommodation and integration of new ideas about education leads to a self-confident attitude in teachers about educational change. Importantly, the complexity of change in skills, thinking, and committed actions in educational endeavours cannot be mandated (Fullan, 1999). Teachers, who have worked for 30 or 40 years beyond their pre-service training, experience a sharp learning curve when encountering new information (Fullan, 1999). For example, it could be inferred that Lithuanian teachers needed to experience such a learning curve about ITC and gifted education to support differentiation in their classrooms. Caution must be taken, however, that Lithuanian teachers understand that although instructional technologies represent a means of dissemination innovations, these technologies can also be used to export inappropriate

programmes and communication to the students from various parts of the world. Therefore, monitoring student use of technology is important to teaching ITC in the classroom. For teachers in Lithuania, this would entail a sharp learning curve.

Fullan (1993) cautions that because neither centralisation nor decentralisation works on its own, successful changes require a dynamic relationship of pressure and support through continuous negotiation. Change must be connected within a broader context to be successful, and must engage every individual who is involved in the process. Effective change agents use mandates as catalysts to re-examine their work (Fullan, 1993). Because change affects every part of life, it is important to be proactive when planning to take charge of the future (Heller, 1998; Hanninen, 1996). Fullan's model recommends that teachers and administrators continually revisit the process of change, and that they make adaptations and alterations whenever necessary to maintain effectiveness and support.

Fullan's model features four broad phases of the educational change process: initiation, implementation, continuation, and outcome (Fullan & Stiegelbauer, 1991; and Fullan, 1993) [Figure 2.1].

Figure 2.1 Fullan's Four-Stage Model of Educational Change (1982)

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Initiation Stage

The first stage of Fullan's model is the Initiation Stage of mobilization or adoption. This stage consists of all that led up to the change process and includes the decision to adopt or proceed with that change (Polyzoi et al., 2003). Lithuania attempted to stabilise the education reforms with the introduction of the Law on Education (1991), which is similar to Russia's Law on Education in 1992 and to Romania's efforts in 1995 (Polyzoi et al., 2003). The Law on Education allowed for the restructuring of Lithuania's education system, including its administrative structure, curricula, textbooks, evaluation tools, and teacher training.

Fullan (2001, as cited in Polyzoi et. al., 2003: 14) identifies the important elements that constitute an effective initiation phase:

1. Advocacy;
2. Bureaucratic orientations and problem-solving approaches;
3. Teacher advocacy;
4. New policy/funds at the federal, state and local levels;
5. Existence and quality of innovations;
6. Community pressure/support or apathy;
7. Access to information, and
8. External change agents.

Fullan emphasises that 'initiation of change never occurs without an advocate' (Fullan, 2001: 58, as cited in Polyzoi et. al., 2003:18). In Lithuania, Associate Professor Brone Narkeviciene, Kaunas Technological University, was a strong advocate for developing the seminar series in gifted education as collaboration between KTU and the Kaunas Teachers Centre. Through her efforts, ninety-three Lithuanian teachers participated in the professional development programme, which was supported by the Minister of Education and building headmasters, to receive training for developing a gifted identification process. Polyzoi et al. (2003: 71) points out a problem in Hungary: school administrators who identify themselves with the reform become at risk of losing their job. Here, it was hoped that Lithuanian teachers would examine their classroom teaching practices for the gifted without being fearful of taking risks, making mistakes, or trying new approaches.

Implementation Stage

The implementation or initial usage stage occurs over the first two or three years of use and attempts to put an idea, or reform, into practice (Polyzoi et al., 2003). Fullan and Stiegelbauer (1991) list three major characteristics that affect the implementation of change: (1) the need for change; (2) the clarity about goals, and (3) the complexity or extent of the change required for those responsible.

Because Lithuania's education system and economy were moving towards a democracy [Chapter 1, Section 1.5], the need for change and a refocusing of educational goals was inevitable. The educational aim that once prioritized the good of society was replaced with the drive for personal independence (Grigorenko, 2000, as cited in Heller et al., 2000). The adoption of new educational legislation, i.e., the

Law on Education (1991), reflected the complexity of reform required in the restructure of the Lithuanian education system. New policies were implemented that provided for implications for change in both the teaching profession and textbook preparation (Eurydice, 2001).

As a specific relevant example, gifted pupils are more interested in the curriculum and learn more quickly and in greater depth, in a student-centred differentiated classroom (Tomlinson, 1999). With a differentiated curriculum, teachers can vary the content, process, and product to create meaning whilst meeting the individual needs of its gifted children. Utilisation of student-readiness and pre-assessment tools helps teachers build upon essentially good teaching practices. The challenge for implementation in a differentiated classroom is the continual need for teachers to create opportunities for gifted students to collaborate and to connect old information with the newest to make sense out of the new information (Tomlinson, 1999). To ensure excellence of teaching, Lithuanian educators had to embed these characteristics into their teaching practice and infuse them into their curriculum. Only in this way would Lithuanian teachers be able to successfully address the diverse psychological, social, and academic needs of these gifted learners.

Even with the implementation of authentic learning experiences, the responsibility for change does not rest solely in the classroom; it extends into the community. Facilities, resources, and accessibility are prime considerations when addressing the expectations of parents and the community (Leroux & McMillan, 1993). Fullan (2001) stresses that the single common factor in every successful change initiative is that relationships improve, and if relationships do improve, things gets better.

To achieve a high level of success, Hargreaves and Fullan (1998: 73) caution that ‘treating relationships with parents and communities as powerful learning relationships is essential for teachers.’ These relationships could encourage building a stronger foundation for understanding the unique needs of gifted children. They could also involve building a stronger foundation for parents and guardians to support an effective understanding of skills and strategies that are required for gifted children (Rogers, 2002).

Herskovits (1995) at the Institute for Psychology in Budapest, Hungary, also notes the importance of parental involvement in the development of the gifted child's whole personality. Ever since European Council for High Ability (ECHA)-Hungary in 1988 and the Hungarian Association for Gifted Children in 1989, there has been pressure on experts to start a voluntary service for parents that will encourage them to become involved in the variety of problems, such as the need to choose a suitable school with ability-developing programmes. To the extent that a similar parental pressure exists in Lithuania, Lithuanian teachers needed to continue to find ways to involve parents as partners and include them in their gifted students' learning.

Continuation Stage

The Continuation Stage is the extension and sustainability of the new programme over the next one or two years (Polyzoi et al., 2003). Success at this phase depends on whether or not the change has successfully become embedded into the educational structure (Fullan, 1993). There is pressure upon teachers to change their classroom practices towards individualisation and small groups to address the diversity of students in the classroom (Hargreaves & Fullan, 1998), and this pressure presented a challenge for Lithuanian teachers in terms of their time, effort and knowledge. Fullan (1993: 39) argues that every person is a change agent:

Each and every teacher has the responsibility to help create an organisation capable of individual and collective inquiry and continuous renewal, or [change] will not happen.

Fullan's statement that every person is a change agent raises his earlier point about moral purpose. Moral purpose is usually accompanied by a sense of resolve, where moral purpose becomes the benchmark for leadership. Individual commitment, in addition to collective mobilization, creates the mobilization of people towards making the improvements needed for successful change (Fullan, 2001). Fullan (2001) argues that schools are improved by greater student engagement, teachers' increased overall satisfaction, enthusiasm of teachers, and greater involvement of parents and community members. Increased pride for everyone who is involved in the system reduces any negativity from the change efforts, is less demoralizing for employees, has fewer examples of uncoordinated reform, and offers less wasted effort and resources. Hargreaves and Fullan (1998: 87) conclude that: "Education happens when hope exceeds expectation. Teaching is what makes the difference." Therefore, unless

the pursuit of excellence and the morale of Lithuanian teachers were at the core of the concern for well-being of their gifted students, educational reform efforts could not be successful, according to Fullan's model.

Outcomes Stage

The major kinds of problems and difficulties teachers experience are readily identifiable because most relate to the management and execution of instruction (Fullan, 1993). Fullan (1982) lists problems most easily overlooked: difficulties with evaluating pupil performance; receiving evaluation from administrators; working with parents; developing a consistent teaching style; learning how the school operates; and knowing what rules to enforce.

Two of the problems listed by Fullan (1982) have implications for teachers of gifted pupils: (1) evaluating gifted pupil's performance, and (2) working with parents of gifted children. First, because many Lithuanian teachers may not have knowledge of or access to various tools that measure the exceptional work or talent produced by gifted pupils, alternative assessments and creative, non-traditional evaluations needed to be devised. Van Tassel-Baska (2008) claims because these tools can be labor-intensive for teachers to create, this may not be a viable option. Second, it can be challenging for teachers of the gifted to educate parents on how to nurture and support the gifts and talents of their gifted children and to help them to provide appropriate opportunities and resources for both in and out of the classroom. This became an issue in the second school-based study [Chapter 5].

Fullan (1982) calls for a balance in perspective of 'incentives and disincentives' among teachers to explain the outcome of change. Farber (1991: 1 as cited in Fullan, 1993) suggests that:
Many teachers begin their careers with a sense that their work is socially meaningful and will yield great personal satisfactions, but become disheartened with a 'sense of inconsequentiality' that often accompanies the teacher's career.

Almost all teachers reported that, as beginning teachers, they experienced a transitional period of feeling fear, anxiety, isolation, and loneliness when experiencing teaching on their own with little or no outside help (Fullan, 1993). They

found their way by seeking help and advice from trusted colleagues. Fullan (1993) suggests a strong relationship exists between how teachers cope with this transition period and with how they progress professionally to achieve high levels of skill and endurance. It can be argued that if Lithuanian teachers were to become more accomplished professionals, it would be because of their initiative and personal resources instead of the fact they were staff in their particular school system.

The capacities for staff to build greater change are personal vision building, inquiry, mastery, and collaboration (Senge, 1990; Fullan 1993). The creation of an increased repertoire of skills by an organisation's members in a collaborative work culture is paramount to the development of shared vision. For example, the meta-goals of 'knowledge creation' and 'sharing' are congruent with the previous three themes of initiation, continuation, and implementation (Fullan, 2001). Fullan's model predicts teachers will not voluntarily share knowledge unless they have personal moral commitment and the dynamics among them favour change. Therefore, it was important for Lithuanian teachers to experience successful practices of identifying and educating gifted children. It can be argued that by engaging in ongoing reflection, and then making appropriate adjustments, Lithuanian teachers would understand best practices for teaching gifted children. Their new role as facilitators-of-knowledge offered a different and unique experience for those trained during Soviet times as mere dispensers of information.

Moreover, Fullan argues that self-reflection and collaboration contribute to the development of teachers as leaders. Fullan (1982: 5) defines six guidelines to provide leaders with concrete and novel ways upon which to reflect about educational change:

1. Establish goals which focused on innovating the most;
2. Create more than 'the better ideas;'
3. Appreciate early difficulties of trying something new: the so-called implementation dip;
4. Redefine resistance as a potential positive force;
5. Reculturing is the name of the game, and
6. Focus on complexity, rather than a checklist.

In 2002, the researcher established goals for the professional development programme to educate Lithuanian teachers in the identification and education of gifted children [Chapter 4, Section 4.2]. Although Lithuanian teachers acquired knowledge about

gifted education from previous lectures sponsored by Kaunas Technological University and the Kaunas Teachers Centre, participants were now exposed to gifted education models from North America. By involving Lithuanian teachers in the decision-making process of developing a gifted student identification process, they were able to choose and modify information from the East and West to create new ideas that would be acceptable to their schools. Through self-reflection and collaboration with teachers from other Kaunas regional schools, Lithuanian teachers who attended the researcher's professional development programme were provided with inside information to appreciate the difficult task of leading change. Because of the researcher's request that schools send small groups of teachers to participate in the programme, it was anticipated that there would be support for the implementation of the gifted identification process at the schools. Thus, relationships and commitment played an important role in the restructuring or 'reculturing' of Lithuanian schools. Whilst complexity creates problems for the implementation of change, it can result in bringing about even greater change because more is attempted (Fullan, 2001). Although presenting Lithuanian teachers with a checklist of characteristics of a gifted child would have been an easier task, by involving teachers in the decision-making process, empowered them to become 'change agents' to 'reculture' their environment as they implemented a gifted identification process in their schools.

Fullan (1993) suggests that the opportunity for teachers to learn is critical and, also, is the greatest explanation to account for differences among students, schools, and countries. Opportunity presents the potential for meaningful change in developing partnerships with other change agents, both within one's own group and across all groups (Fullan & Stiegelbauer, 1991). For example, the change processes described in this thesis assumed that renewal of schools is most likely to be advanced when renewal efforts are linked closely to teacher education and university research activities. Consequently, the partnership of Kaunas Technological University and the Kaunas Teachers Centre was significant in the redesign of teacher education in Lithuania.

Fullan (1993) argues most systems do not change by themselves; it is the individuals and small groups who act on new ideas to produce the breakthroughs that culminate in change. A grassroots movement aimed at raising consciousness and equipping

individuals with the necessary perspectives, skills, and knowledge by itself is not enough. Consequently, Fullan (1993) posits that the combination of both top-down and bottom-up strategies for implementing systemic reform is essential, and that this framework must blend both top (national and international bureaucracies) and bottom (grassroots movement) constructs. Once mobilized, the tension between these two entities then becomes a new paradigm for the teaching profession (Berends & King, 1994). For Lithuania, this shift in thinking was realised as a result of the collaboration among teachers and the school community with the Ministry of Education and Science. Subsequently, the new paradigm posed a challenge for teachers, who in their need to now adapt to Western pedagogical methodologies, had to develop both an identification process and educational practices to meet the needs of gifted children in the regular classroom.

Darling-Hammond (1992, cited by Hargreaves & Fullan, 1998) reports on two approaches to such school reform. The first approach focuses on the tightening of controls that advocates standards enforced by both rewards and sanctions. An example of this approach is the alignment of school funding with test scores. The second approach concentrates on teacher qualifications that include teacher education; licensing; certification processes; professional development in schools; efforts to decentralise school decision-making whilst infusing knowledge; changing local assessment practices, and developing networks among teachers and schools (Darling-Hammond, 1992). These changes, which aligned with curriculum and assessment reform, emphasised skills of real-world problem solving so that teachers would become producers, and rather than consumers, of knowledge.

To understand the applicability of such changes for Lithuanian teachers, it is necessary to revisit the history of Russian teachers and teacher education prior to *perestroika* of which Lithuanian was part. Characterised as a 'marked decline in quality,' Russian education exhibited inflexible teaching methods, outdated textbooks promoting communist ideology, deteriorating building conditions, and a static and bureaucratic administration structure (Kerr, 1991; 1995, as cited in Polyzoï et al., 2003: 16). Research and development were non-existent, and teacher initiative was not encouraged. Teacher's work went unrecognised and they worked in sub-standard conditions: salaries were lower than those of industrial skilled workers, basic school

supplies were difficult to obtain, and school buildings lacked running water, central heating, and indoor plumbing (Kerr, 1996, as cited in Polyzoi et al., 2003:16). Thus, for Lithuanian teachers to assume responsibility for the development, implementation, and continuation of a gifted identification process, these work environments required modernisation. Additionally, teachers needed more equitable pay, and to have well-supplied and fully functioning school buildings to teach in.

The new Lithuanian reform document, *Concepts of Education*, presented a commitment to the democratic principles of education, education accessibility, transmission of values and more freedom for teachers (Kuolys, 1999). This political reform document was one of the first steps toward empowering Lithuanian teachers. *Concepts of Education* views education as the necessary condition for individuals to creatively express their natural abilities as ‘creator’ as well as ‘consumer’ in the adoption and development of a culture (Kuolys, 1992: 9). It encouraged Lithuanian teachers, scientists, and artists to ‘pull their energies in an effort to create new curricula, textbooks, and educational materials based on the unique national culture’ (Kuolys, 1992: 9).

Fullan (2001) stresses that the biggest challenge an education system faces is ‘reculturing’ the teaching profession. The redoing and rethinking or unlearning and relearning are growth processes teachers experience when adapting to new expectations. Further, as professionals, teachers need to assume more active roles in the areas of professional development and initial-teacher preparation (Fullan, 2001; Altrichter et al., 1993). Fullan (2001) explains the new paradigm as one of collaboration, not autonomy, one that should not, therefore, be controlled by authority figures. This open model draws upon teachers’ own learning to fulfil their potential and become a creator of dynamic social renewal, as stressed in *Concepts of Education*.

Kozma (2002) argues that one way to reculture present-day Lithuanian teachers is through the use of technology. Results from a study conducted by the Centre for Technology in Learning in California, indicate that in both developed and developing countries, information and communications technologies (ICT) help to transform schools and classrooms. Kozma (2002) states ICT focuses on developing new

curricula based on real-world problems and provides scaffolds and tools to enhance learning. Students and teachers are given more opportunities for feedback and reflection, and build local and global communities that include students, teachers, parents, practicing scientists, and other interested parties. Because ITC offers both students and teachers the opportunity for feedback and reflection, technology becomes an important tool in promoting learning [this point is taken up in Chapter 5 - mathematics teacher interview].

Drawing on Fullan's model, another way to reculture the teaching profession was for Lithuanian teachers to create a collegial professional learning community, which also must include parents as partners in their children's education (Fullan, 2001). Encouraging collaboration among the school community leads to a shared vision - yet another challenge for educational reform in Lithuania. Collaboration can lead to effective school leadership. Fullan (2001) emphasises that leaders who emerge will advocate, nurture, and sustain the new culture and will embrace safe and effective learning environments that support student learning and professional growth. Hargreaves and Fullan (1998) characterise effective leaders as having a strong sense that they can and do make a significant difference in students' lives.

Fullan (1993) argues that teachers must also adopt moral purpose that emphasises teaching the whole child, one that ultimately will bring them closer to their pupils' needs. For Lithuanian teachers to lead in a changing world, it is important that they revisit and renew their sense of moral purpose by reflecting and collaborating with their learning community. Continual self-assessment and evaluation during each stage are necessary to measure successful progress and change (Zogla, 1998). This process was especially significant for those teachers who participated in the professional development programme of this study [Chapter 4].

In a changing world, a school that encourages continual reflection renews the teacher's purposes and leads to creating a work climate that supports a more positive atmosphere (Hargreaves & Fullan, 1998). The teachers' requirements involve: teacher recruitment; the selection of teachers; status and reward; redesign of initial teacher education and induction into the profession; continuous professional development, and standards and incentives (Hargreaves & Fullan, 1998; and Hess,

2004). To achieve such an environment, it was important that Lithuanian teachers examined their work and work conditions.

An important tension existed between the Lithuanian teachers' voice and vision, and the need for change and improvement. As Fullan argues, a common vision, supported by a commitment towards shared goals, is best developed by those who advocate such a development. The combined teachers' voice that articulates purpose or concern serves as a connection to their professional lives (Goodlad, 1997). This development was essential for Lithuanian teachers to develop confidence and consistency, as well as self-efficacy, and articulate a voice as a way of constructing and reconstructing purposes and priorities in their work, both individually and collectively.

With the above guidelines in mind, the following sections of Chapter 2 examine various partnerships Lithuanian teachers were making to bring about sustainable changes that affect the education of gifted children.

2.3 Systemic Educational Change in Lithuania

Living during this time of change, Valdas Adamkus (2000), President of the Republic of Lithuania commented:

It is both a paradox and a law that the signs of crisis have become evident in the tenth year of Independence. They show nothing else but the price to be paid for undone reforms. The present day has opened up an historical possibility for us to overcome the attraction of Soviet time, previous thinking and habits. In my opinion, a reformed system of education plays the essential role in rural development. We need further reforms in the field of education and science. The changing world requires new cultural, economic and political literacy, and the education network should be designed to satisfy this requirement.

Educational reform has been a vital part of Lithuania's transition to a democratic society and market economy. As noted in Chapter 1, Lithuania's attention to educational reform was a priority common to all of the Baltic States after independence (Zelvys, 2000). The first movement toward Lithuania's reformation of the educational system occurred in 1988 as a result of Russia's *perestroika* programme of economic, political, and social restructuring, and the Lithuanian National Liberation Movement, *Sajudis*. The combination of these two movements brought about the formation of the Concept of National School by recommended members of the Lithuanian educational

community (Zelvys, 2000). The concept of a National School, a programme for reform based upon a renewal of national identity, embraced new education programmes, text books, types of schools, and new school laws, such as the Law on Education (1991) and the General Concepts of Education in Lithuania (1992). Since 1988, major changes in the direction of the educational system have occurred with the realisation of a National School.

In 1992, the Concepts of Education assumed the country's basic principles in education to be humanism, democracy, nationality, and renewal. In doing this, the document also adopted some underlying values of Western culture: unconditional worth of the individual, love of fellow man, innate equality of the people, freedom of conscience, and the assertion of tolerance. These values are articulated in the Education Guidelines of 2003-2012, and are fully consistent with Fullan's sense of moral purpose and concepts of modernization and restructuring of an education system.

The growing awareness in Lithuania that an inadequately organised or poorly functioning system of formal education increases the social and economic gap among its people, led to the development of yet another policy document: *The General National Curriculum and Standards* (2002). Similar to the educational reform changes in Romania, i.e., adapting a new curriculum at the school level (Polyzoi et al., 2003), Lithuania replaced its old curriculum with a new one. The new curriculum recognised individual choice and adaptation at the school-level which Fullan (1993) describes as teacher empowerment and ownership contributing to success.

Thus, the steps toward educational reform in Lithuania could be perceived within a wider context. Since 1990, a major upheaval occurred in the political and economic systems of Eastern Europe. Under communism, Eastern Europeans had free access to education; at the beginning of 1989, for example, adult literacy was nearly universal. Mortimer (1989) reports that tuition at all institutions of higher learning was free and the government subsidised the costs of dormitories and room and board. Graduates, however, were expected to repay the government by working at government-assigned jobs for two to three years.

The educational systems of the republics of Eastern Europe, which included Lithuania, produced an elite first-rate class of mathematicians, physicists and engineers (Budiene, 2002; and Hosking, 2001). Although these countries believed their education systems to be of high quality, the World Bank (2000) reported that the good educational outcomes under Communism were changing. The Bank warned that unless the fault lines beneath the surface were repaired, the educational systems would be undermined. Fullan (1993) is perhaps prescient in proposing that a system without clear organisation from the start will end in failure.

Now that Lithuania is a member of the EU, it is affected by the problems of globalisation, and the concept of 'brain drain' has become a 'defensible fear' (Kelo & Wachter, 2004).

Additionally, other areas of educational reform warrant closer investigation (Budiene, 2002: 47):

1. Reforms of the structure of the education system;
2. Revision of educational targets, standards and the curriculum, including the range of teaching methods that are used to ensure that the emerging individual, social and economic needs will be met;
3. Reform of both pre- and in-service teacher education to equip new and existing teachers with skills to meet these new demands;
4. More systematic direction of teacher education, including the introduction of quality standards and quality assurance, and
5. Changes in the education funding mechanisms.

These areas of educational reform were also examined by Fullan (2001), who emphasized the necessity for systematic improvement in an organisation as well as in the organisation's culture. Understanding of the current construct of the country's educational system was important for Lithuanian teachers, not only when initiating reform discussions, but also when analysing policies to pragmatically deliver effective teaching practices to gifted children.

2.4 Educational Change in Lithuanian Schools

Schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This accommodation also should include disabled and gifted children, and all of these conditions create a range of different challenges to school systems. (The Salamanca Statement and Framework for Action on Special Needs

Education, 1994)

To improve the quality of education in Lithuania's basic schools today, the Ministry of Education and Science prepared the *Education Improvement Project* [EIP] (2002). By supporting municipalities and optimising school networks, the EIP put previous educational policy documents into practice to improve student achievement and energy and space utilisation of targeted schools. It was expected that funding for this project would be secured from a World Bank loan in addition to co-funding from both the Government of the Republic of Lithuania from municipal (city) funds.

The *Education Improvement Project* (2002) stated two objectives for improving educational achievements for students who attended basic schools: (1) To enhance the quality of teaching and learning at basic schools, and (2) To optimize the utilisation of educational funding and resources. The Project focused on solving the following current educational problems in Lithuanian basic schools. It is interesting to reflect on how these improvements might affect gifted students.

Structural Reform

The number one priority for upper secondary schools in Lithuania was structural reform. This priority focused on improved access to general education to meet individual and national development needs, and emphasised the improvement of teaching and learning conditions in basic schools. The acquisition of learning skills for all pupils served as a basis for literacy and life-long learning. However, because gifted pupils often enter a classroom with a wide range of abilities and talents that exhibit prior knowledge and skills, it was important that Lithuanian educators recognised their exceptional needs and made appropriate provisions for them that extended beyond the general education curricula. Although it can be challenge, developing and implementing an educational plan for any exceptional child is critical to motivating life-long learners.

Improvement of Learning Conditions

Although Lithuania's general education curricula and structure experienced change in Lithuanian basic schools, little effort was made to improve the physical infrastructure or to create a learning environment that met addressed the present-day standards for

student learning. A need existed to improve learning conditions since most school buildings did not comply with modern requirements at even low levels of maintenance.

It was the responsibility of the Ministry of Education and Science to work with the municipalities in Lithuania to improve the physical infrastructure for students in schools. However, it was the responsibility of teachers to create a learning environment that addressed present-day standards. Lithuanian teachers need to address instructional management of gifted pupils in their classroom, i.e., how they can be grouped (or not grouped) for maximum learning opportunities. Rogers (2002: 81) describes various instructional management services of grouping by ability or achievement for high potential children: full-time ability grouping or tracking; regrouping by achievement for subject instruction; cluster grouping; partial day or send-out grouping; within-class performance grouping; cooperative grouping with like-ability learners, and cross-graded classes. 'Acceleration' is another method of instructional management that can be single subject, several subjects, or in entire grades. Thus, there are various classroom management techniques that can be implemented by teachers to improve school programmes and services for gifted pupils in school.

In addition to implementing various management techniques, Lithuanian teachers had the responsibility to create an enriched learning environment that builds a context for learning for gifted pupils. Tomlinson and McTighe (2006: 18) claim although a 'climate' for learning is good and does not necessarily guarantee student success, it 'opens the way and provides a setting in which consistent partnerships help students navigate success and failure as a part of human growth.' Eyre (1997) recommends that teachers create a positive classroom atmosphere, which is student-centred and attends to student readiness, interest, and learning profiles to enable efficiency of learning. To stimulate the development of gifted pupils, Lithuanian teachers ideally had to aim high and encourage risk-taking opportunities in a safe and positive environment.

Improvement of Quality of Education

In 1998, the priority of the Lithuanian Ministry of Education and Science was to improve the quality of education, as well as to create a quality management system. The intent of this initiative was to raise the standards of learning conditions in schools. However, because the main elements of the educational reform lacked monitoring and assessment, few incentives spurred for schools to achieve better quality educational services.

According to Fullan (2001), it is essential for leaders to understand the change process to be able to tackle the tough problems. Collective mobilization can occur if there is individual commitment to improve a situation. Therefore, to create a quality management system that is intent on proving provide excellence in education, the Lithuanian Ministry of Education and Science needed to build a strong relationship with community leaders, e.g., educators and parents, all of whom invested in the success of Lithuania's educational reform.

Democratisation of Society

The democratisation of society, the transition to a market economy, and entrance into the European Union created a need to review the principles, objectives, conditions, and processes of education in Lithuania. However, since 1990, the contents of general education were organised with educational standards and a system of student assessment was also created. Because exemplary, or visionary, levels of performance representing excellence in gifted education programming did not yet exist in Lithuania, to produce high-quality gifted education programmes, Lithuanian teachers needed to develop guidelines for standards that measure the effectiveness of programming and develop criteria for programme evaluation. Creativity and performance-based assessment also needed to be addressed to cover the range of abilities of gifted pupils in the classroom.

Optimised School Network

The main priority of the optimisation of the school network for educational institutions was based upon the improved involvement and participation of the greater school community. The EIP aspired to strengthen the capacities of local government to rationally manage the school network, and aimed to achieve a desired quality of educational services so that resources would be rationally allocated to education. This

aspiration could have very positive affects for gifted pupils who require special educational services and resources. Winner (1996) and Webb et al. (2007) argue it is a myth that gifted children cannot make it on their own; they need intellectual, emotional and political support to succeed.

As noted above when discussing the Continuation Stage of Fullan's framework, there were many attempts to implement these values into everyday life in Lithuanian schools. More problems, however, continued to surface. The system of managing quality in the Lithuanian educational system had not undergone many significant changes, except for a few initiatives aimed at ensuring the quality of teaching in Lithuania (Zelvys, 2000). The major structural difference was that the school inspection was taken away from local educational authority and granted to regional, or county, educational authorities, a reform which resulted in a reduction in the number of inspectors. Although the content remained the same as it was when the work place changed from local to regional educational offices, Lithuania's Ministry of Education and Science now shared the responsibility for Lithuania's educational decision/policy-making and administration with the Educational Council, which is comprised of the regional (county) government, municipal (local) government, and governing bodies of schools. The new Department of Organisation of Secondary Education opened, and the central Department of the Inspection in the Ministry of Education and Science was formally closed.

However, these high-level structural changes did little to improve student learning. The need for evaluation of student outcomes following the management and execution of instruction can be described as an example of the Outcome Stage of Fullan's model. In Lithuanian secondary education, outcomes of gifted students' performances were measured by their participation in Olympiad competitions, and by their performances measured after comparative studies, in mathematics, science, and civic education.

Data from the National Assessment of Education Progress (NAEP) presented an international comparison of the students' academic performance and were recognised as reliable indicators of how Lithuanian student performance compared longitudinally with comparable students in other countries (Hanushek, 2002). The data reported in

the performance of seventeen year olds on the NAEP, 1970–1999, revealed Eighth Grade Lithuanian students ranked 35 out of 41 (lower 15%) in both mathematics and science. Twelfth Grade students ranked 17 out of 21 (lower 20%) in mathematics, and 19 out of 21 (lower 10%) in science.

A closer look revealed that the Lithuanian student performance consistently ranked at the bottom of various subcategories. Lithuania's students not only performed poorer than students in other nations, but also performed poorer than the students in the Russian Federation and in its former republics of Hungary, Latvia, Bulgaria, and Slovenia (Hanushek, 2002). Arguably, the Lithuanian education system did not provide the necessary skills for its students to adapt to new technological changes in the world. It can be inferred that because Lithuanian schools did not have the necessary resource spending per pupil and were experiencing an increase in pupil-teacher ratios, the quality of student learning was impacted negatively.

Budiene (2002) reports a large number of Lithuanian pupils are unmotivated to complete their studies and, therefore, must repeat the academic year. Fullan (1993) argues the need for incentives, both intrinsic and extrinsic, as one of the best ways to motivate students and the best hope for reform. Although intended as a motivational incentive, Lithuanian teachers' purposeful selection of pupils for comprehensive or secondary schools, based upon social origin, probably increased social inequity. To stop the high drop out rate in Lithuanian schools, therefore, teachers needed to find ways to identify gifted children of under-represented minority groups and challenge all children in the regular classrooms. The significance of the achievements in some schools, then, can be attributed to selection, which cannot be ignored for identifying Lithuania's gifted youth as the country's potential future leaders [noted in Chapter 1]. It was important, therefore, to debunk the myth that gifted children are so smart they can take care of themselves with or without special provisions, and that they will survive without help (Shaughnessy, 2003; Hollingworth Centre, 2005; and Webb et al., 2007).

The other extreme is to regard gifted students as belonging within the classification of Special Educational Needs (SEN). Although the current status of special education in European society is in a state of transition, Lithuania is fully committed to educating

all students in the regular classroom (Aidukiene, 2001). Unfortunately, during the early years of the 21st century, special education in Lithuania still reflected Soviet educational thinking of not accepting diversity as an inherent right of members of society; 'normal' still implied the desired state of uniformity (Aidukiene, 2001). By 2004, upon becoming an equal member of the EU, Lithuania was in the advantageous position of analysing and integrating various models and practices of gifted education to direct the identification and education of its gifted children. Coupled with access to and the influence of Western thinking, the Ministry of Education was in a position to choose, and make an informed decision about what practices best suit the country's cultural needs.

Three categories define the system of education for SEN students in the regular classroom. The educational trend in various EU countries, including the pre-accession countries, favours the 'one-track' system, which integrates SEN students in mainstreamed schools and provides teachers with various degrees of support for supplementary staff, materials, and equipment. The 'two-track' system offers two distinct educational systems, each under separate legislation that reflects different laws for both mainstream and special education. Lithuania belongs to the third category: a 'multi-track' system.

The multi-track system offers a variety of services and provisions that are based upon characteristics taken from both the one and two-track systems. Lithuania is among Denmark, German, France, Ireland, Austria, Finland, Iceland, Estonia, Hungary, Poland, Slovenia, and Slovakia in its choice of multiple approaches to integration (Aidukiene, 2001). Aidukiene (2001) questions the probability of a traditional school effectively meeting the diverse needs of all its learners and questions whether the traditional model has to be changed. It is unknown, however, just how much change the people of Lithuania could accept without losing their sense of self, and how much they must accept to ensure their children have the necessary skills for building a society that is committed to its cultural foundations (President Adamkus, 2001). However, with the decade following Lithuania's independence in 1990, change was the only constant in Lithuania.

In 1992, the General Concept of Education introduced many important steps that contributed to the significant renewal and improvement of Lithuania's educational system. The General Concept of Education provided for the creation of a legal base, institutional diversification, and publication of new textbooks, a new national curriculum and a design of educational standards for Grades 1-10 (1992). In addition, it provided for a new national exam in secondary education (1998 - 1999), free to all candidates (Jackunas, 2000). However, some concerns persisted. Constant postponement of plans to optimize the school-network, delay in the introduction of the new education finance model, ambiguous aspects of education streaming in upper-secondary education, and uncertainty of the future of secondary schools, which would not be changed into *gymnasia*, were but a few of the issues (Jackunas, 2000).

The education systems of all former Soviet Republics have a shared history of centralisation and state control, based upon a common set of principles believed to define socialist education. Independent republics, such as Kyrgyzstan, Kazakhstan and the Republic of Georgia, introduced a university admissions test in their higher education reform plans to democratize admissions and reduce academic corruption (Clark, 2005). Whilst the exam was well-received by provinces of the Russian Federation since 1999, top universities such as Moscow State University argued that the admissions test was not a good indicator of a student's knowledge.

In summary, schools in Lithuania faced many problems as the country underwent economic reform, including over-crowded classrooms, lack of financial support for schools' infrastructures, delinquency, low teachers' salaries, and poor communications between educators, administrators and parents. A strong need existed for the professional development of Lithuanian teachers to become empowered to manage educational change in gifted education (Personal conversation. Narkeviciene. 14 August 2002).

2.5 The Need for Lithuanian Teacher Professional Development in Gifted Education

To create conditions that enabled them to use the best available methods, technologies, teaching materials, and equipment, the *Education Improvement Project*

focused on providing teachers with the latest teaching and learning methodologies (Petkeviciute, 2004). The EIP introduced new models for understanding general competencies and the core of teaching and learning now required as an expansion of the system (i.e., professional development of teachers). Teachers were introduced to, and held accountable for, new standards of professionalism in their work. They were challenged to create new activities within the curriculum to motivate student-learning. As they worked with each other sharing pedagogical values and concepts, teachers began to communicate better, which had a positive effect on student learning. As a result, teachers wanted to share, plan, and learn from each other (Petkeviciute, 2004).

There is a natural connection between good teachers and good schools. Goodlad (1984; and 1994) analyses the conditions under which teachers teach and finds that successful partnerships are those in which all parties involved realise they have something to learn. The experiences future teachers have in school during their years as students profoundly impact their later beliefs and practices (Fullan, 1993). If teachers believe they have something to learn, as well as to contribute, they establish better learning relationships with parents and students (Hargreaves & Fullan, 1998). It can be inferred that by establishing a better relationship with parents and students, Lithuanian teachers would foster collaboration that could lead to a more positive work environment that would support student learning.

Fullan's model supports the development of common vision in a professional learning community; a vision committed to shared goals which clarify understanding and builds confidence and consistency among the community of teachers (Fullan, 1993). The teacher's voice articulates purposes or concerns that connect teaching to life and professional development helps the teacher articulate this voice (Hargreaves & Fullan, 1998). It was hoped that as Lithuanian teachers participated in professional development about gifted education, they would become change agents enabled to identify and educate gifted children in their classrooms. Their voices would be heard as advocates for gifted children. It must be noted, however, that despite such aspirations, prior to this research programme, there was no special training offered for Lithuanian teachers to learn strategies for differentiating the curriculum and teaching gifted children (Personal Conversation. Narkeviciene. 14 August 2002; and Personal Conversation. Teacher D. 17 August 2002). The potential benefits of a differentiated

curriculum for gifted students, as noted in the previous discussion of Fullan's Implementation Stage, will be discussed more fully in Chapter 4.

Curriculum renewal is an ongoing task (Fullan, 2001). In Lithuania, systemic attempts have been made over the past decade to revise curricula in all subjects. The new curricula were coordinated with the introduction of new textbooks, new methods of diagnostic and summative assessment, and teacher pre-and in-service training (Budiene, 2001). However, many Lithuanian teachers had little experience in curriculum development and, consequently, found it difficult to address the compulsory core content in the time available during the school day (Budiene, 2001). It was an even greater challenge for Lithuanian teachers to differentiate their curriculum in overcrowded classrooms with a lack of materials and resources.

Lithuanian teachers received little support or training from their school inspectors or their in-service programmes to help them understand how to accomplish the necessary changes. It was not enough for teachers to be experts in their own fields; they now had to provide for a spectrum of learners in the classroom. Their new curriculum demanded new knowledge and skills, which even veteran teachers may not have acquired. Emphasis in the Lithuanian classroom was now placed on teachers' understanding of the complexity of teaching, including how gifted children learn in different ways and how teachers can teach to meet these children's complex needs.

In addition to the academic needs, it is recognised that gifted children also have socio-emotional needs. These needs, as listed by Feldhusen (1991, as cited in Colangelo & Davis, 1991) include:

1. Challenging instructional activities;
2. Opportunities to learn new material at a faster pace;
3. Instruction at higher skill and conceptual levels;
4. Clarification and confirmation of students' gifts and talents;
5. High level expectations from talented teachers;
6. Interaction with challenging peers;
7. Access to diverse topics, disciplines, and content, and
8. Opportunities for in-depth research, exploratory investigations, and creative synthesis of ideas.

These teaching and learning processes needed to be explored more deeply for the professional development programme for Lithuanian teachers of the gifted. Vaiva

Vebrate, co-creator of APPLE, worked in collaboration with the Ministry of Education and Science to provide the needed in-service education for Lithuanian teachers and also developed a Teacher Centre network for the country. During the summer of 1995, this initiative resulted in the first professional teacher training seminars in the capital city of Vilnius. Because many of the teacher volunteers from Western countries did not speak Lithuanian, it was necessary to hire Lithuanian teachers of English to serve as interpreters. This collaboration among the relevant change agents contributed to a strong relationship between the Lithuanian and Western teachers, and is an example of the partnerships inherent in the Implementation Stage of Fullan's model-

However, even though hundreds of Lithuanian teachers received training from APPLE during the summers, initially, there was no opportunity for continued collaboration throughout the year. There was a need for skilled practitioners in the field of gifted education to work at academic institutions to support and sustain this initiative. To this end, in 1995, the Ministry of Education and Science set requirements for every college or higher education institution to provide teacher training in special needs (Aidukiene, 2001). A significant outcome was the *New National Teacher Training Concept*, a programme that had been developed to focus on providing teachers with both a theoretical and practical knowledge base. The ideas that emerged from this outcome phase provided a broad framework for understanding the transformation of Lithuanian education in the broad context of cultural and societal changes. It remains to be seen if these ideas will guide the country's future thinking and strategic planning for continued educational growth.

In 2002-2003, the first Lithuanian professional development programme in gifted education was offered to teachers of the Kaunas region through the collaboration of Kaunas Technological University and the Kaunas Teachers Centre. This opportunity enabled the first study of this research programme. The outcome reflected Fullan's empowerment of teachers as change agents to identify and educate gifted children in Lithuania [reported in Chapter 4].

Chapter 3

International Perspectives of Giftedness

3.1 Introduction

Before considering this research on change in perceptions of giftedness for Lithuanian teachers following a professional development programme in gifted education at Kaunas Technological University and the implementation of a gifted student identification process by Case Study School teachers who attended the professional development, prevailing models of gifted education are examined for their suitability to/for the Lithuanian context. Chapter 3 reviews the literature of the most prevalent definitions of giftedness and intelligence, and of gifted education models. The chapter focuses on gifted identification practices and programmes in some of the former Soviet Republics which sought to provide equity and excellence in education, from educating their elite to developing the potential and abilities of gifted students in schools. Finally, the development of gifted education in Lithuania is analysed and presented in terms of these generic models.

3.2 Giftedness: A Problematic Term

According to Hany (1987), there are more than a hundred definitions of giftedness. Exactly, what is giftedness? 'Giftedness' is a term which implies psychological constructs (both genetically and cognitively-based), achievement and accomplishment, as well as environmental impacts. Defining giftedness is a difficult task and, currently, there is no universal definition of giftedness. There is no universal definition because 'giftedness', 'intelligence', and 'talent' are fluid concepts which are understood differently in different contexts and cultures (NAGC, 2006). Because giftedness is culture specific, an identification model must be created within an appropriate socio-cultural context (Taylor & Kokot, 2000, as cited in Heller, 2000). It is clear that gifted learners are not a homogeneous group and their gifts can differ greatly. Subsequently, 'giftedness' has become a multidimensional term comprised of multiple meanings and interpretations. Its etymology can be problematic.

In England, the Department for Children, Schools and Families (DCSF) currently identifies 'gifted' learners as those who have particular abilities in one or more

curriculum subjects. The Department identifies ‘talented’ learners as those who have particular abilities in the creative arts, e.g., music, drama, dance, art and design and physical education (Distin, 2006). Because giftedness is a multidimensional phenomenon, DCSF’s identification may be limited in its scope of gifted and talented learners, and may not reflect the realities of gifted children.

In contrast to the DCSF identification of giftedness, the 1971 Marland Report to the United States Congress (*National Excellence: a Case for Developing America’s Talent*) offered a definition which proved to be a great catalyst for policy-development, not only in the United States, but in many countries throughout the world. Built upon the assumption that the gifted population represents a small percentage of children at the upper end of a ‘bell curve’ (3-5% of a school population), the Marland Report defines giftedness as:

- Children and youth with outstanding talent perform or show the potential for performing at remarkable high levels of accomplishment when compared with others of their age, experience, and environment.
- These children and youth exhibit high performance capability in intellectual, creative, and /or artistic areas, possess an unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools.
- Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavour.

The Marland Report highlighted six criteria for giftedness:

1. General intellectual ability;
2. Creative or productive thinking;
3. Visual or performing arts;
4. Leadership ability;
5. Specific academic fields, and
6. Psychomotor ability.

Psychomotor ability was subsequently dropped from the list. The national report emphasised the need for programming as well as suggested that failure to meet the academic needs of gifted pupils would put them at a psychological risk. Although the

Marland Report offered a comprehensive assessment of giftedness, it did not account for non-intellectual factors, e.g., task commitment, in its definition. The Marland Report is more inclusive, however, than the DCSF definition of giftedness, which offers but one criterion of giftedness.

In later years, the Marland Report's construct of 'gifted' was dropped from the American National Excellence and Developing Talent Report and replaced with 'outstanding talent' (Riley, 1993). From this definition came the Jacob K. Javits Gifted and Talented Act (1988) - Title IV, Part B. for P.L. 100-397 that offered a more focused definition:

The term gifted and talented refers to students and youths who have artistic, or leadership capacity, or in specific academic fields, and who require services or activities not ordinarily provided by the school to develop such capabilities fully.

One problem that arises from these brief definitions, which Gagné (1985) tried to address in his Differentiated Model [Section 3.4], is that giftedness research cannot clearly distinguish between a highly gifted person and a well-trained person, or between an average gifted person and a highly gifted person who is not taking full advantage of his or her gift(s) (Ziegler et al., as cited in Heller, 2000). Similarly, classroom teachers often have difficulty in distinguishing between a 'bright' and 'gifted' child. Thus, many researchers stress the need to consider a one-dimensional view of giftedness (Bernal, 1980; and Grant, 1989, as cited in Maker & Schiever, 1990; Hilliard, 1976; and Zappia, 1989, as cited in Maker & Schiever, 1990).

It is important to view giftedness through a multi-group perspective to define characteristics associated with the giftedness construct and to replace traditional psychometric paradigm with a contextual one (Berlak, 1992, as cited in Berlak et al., 1992; and Bernal, 1980). Some gifted children may be 'domain-specific,' e.g., mathematically or linguistically gifted but function in an average range in other subject areas; others, however, may be identified as 'globally gifted' children (Winner, 1996; and Matthews & Foster, 2005). Globally gifted children have high IQs and achieve extremely high scores across almost all subject areas. Early indicators of giftedness exist at all levels before the age of five (Ruf, 2005; Silverman, 2000; and Winner, 1996). These characteristics can relate to academic abilities, but

are not the only factors considered when determining intellectual levels of giftedness.

Some of the early indicators of giftedness are listed by Winner (1996: 27-30):

1. Attention and recognition memory;
2. Preference for novelty;
3. Learning with minimal instruction;
4. Curiosity;
5. Persistence and concentration;
6. Obsessive interests;
7. Reading;
8. Abstract logical reasoning;
9. Preference for company of older children;
10. Philosophical and moral concerns;
11. Humour, and
12. Experiences of awe, intense and heightened sensitivity.

From Winner's indicators, it can be concluded that the abilities of globally gifted children must be brain-based as opposed to a result of training alone. Winner (1996) argues that because parents of gifted children may not be as gifted, these children tend to manipulate their environments to create a challenge. Therefore, a perspective is needed that emphasises the differences in cultural experiences, values, and beliefs to impact the development of appropriate identification, assessment, and instructional programmes to meet the needs of all potentially gifted pupils.

The word for giftedness has different connotations in other cultures as well. A Western perception signifies unearned privilege (Gallagher, 1991) whilst in German, the word for giftedness can be *Begabung* or *Hochbegabung*, with the term *Hochbegabung* suggesting elitism. The French word for giftedness, *doué* or *surdoué*, induces an emotional, value-laden reaction of negativity (Williams & Mitchell, 1989). These negative connotations can create problems of self-esteem or with friendships for pupils who are labelled as 'gifted.'

In Russian pedagogy, the word 'gifted' is not popular, especially in official statements Zhilin (2000). During times of Marxism and Leninism, the Russian educational system not only neglected the natural abilities of pupils, but also ignored the cultural influence of the family. Thus, Soviet pedagogy considered that giftedness resulted from the quality of education delivered by Russian teachers and promoted by a centralised government. Russian teachers considered 'gifted' to be arrogant and

preferred to use the word 'smart' to mean 'children who want to study and who are able to study' (Zhilin, 2000).

The Lithuanian term for giftedness or gifted child is *gabus* or *gabiu vaiku*. The words *gabumas talentes dovana vaikas* are used when speaking of talented children. It has only been since the fall of communism, however, that the word 'gifted' has appeared in official papers in Russia (Zhilin, 2000) and Lithuania (Narkeviciene, 2000).

Thus, 'giftedness' is a complex term which implies psychological constructs, achievement and accomplishment, and environmental impacts. This study has influenced the researcher's own definition with an enhanced understanding of giftedness as a multidimensional phenomenon. The researcher's definition is based upon the underlying concepts of the 1971 Marland Report:

Gifted children are exceptional children who exhibit outstanding performance or potential, inclusive of creativity and problem-solving skills, as compared to others of the same age, living in similar environments, and having similar experiences.

Exceptional children exhibit passionate and outstanding performance or potential in one or more areas, which are cultural-specific. These children require special provisions both from parents and teachers in social-emotional and academic areas to motivate and challenge them to realise their full potential. Recognition of giftedness is important for an exceptional child's self-esteem. Although gifted children rank in approximately the top 7 - 10% of the population's 'bell curve,' the researcher recognises an extension of the curve to include varying degrees of giftedness.

The identification of gifted children, therefore, has been a topic of debate for a long time. Given the problems associated with use of the term 'giftedness,' as well as understanding that children can be gifted in one or more areas, it is not surprising to find some common beliefs that are not yet well supported by research evidence. For example, some children who are identified as gifted in intelligence may have a learning disability and are thus considered 'twice-exceptional' (Baum & Reis, 2004; and Rogers, 2002). Because of such exceptionalities, some gifted children may feel

disconnected and out of sync their entire lives. Friendships, for example, can be challenging.

Giftedness is not always well understood, so gifted children are often misunderstood (Ruf, 2005; Silverman, 2000; and Winner, 1996). Like all children, gifted children need and benefit from the support of parents and professionals, but some commonly-held myths suggest gifted children will make it on their own without the help from advocates (Winner, 1996; and Webb et al., 2007). Webb et al. (2007: xvii – xviii) and Winner (1996: 7-11) list popular myths about gifted children:

1. All children are gifted;
2. Gifted children are gifted in all academic areas ('globally gifted');
3. Giftedness is wholly inborn;
4. Children become gifted when parents push them, and
5. Gifted children will become eminent adults.

Webb et al. (2007: xvii-xviii) adds the following myths to the list:

6. Gifted children are not aware that they have advanced abilities;
7. Gifted children's emotional maturity is as advanced as their intellect;
8. Gifted children are easier to raise than children who are not gifted;
9. Educators will know exactly how to work with gifted children, and
10. Gifted children will make it on their own without special provisions.

Winner (1996) contributes additional myths:

11. Talented children face different problems than gifted children;
12. Exceptional IQ is required for giftedness;
13. Gifted children glow with psychological health, and
14. Genius is entirely environmental.

Interestingly, whereas the Lithuanian term for giftedness seemed fairly neutral, the Russian term carried some negative values, although neither of these terms necessarily embraced the beliefs on Webb's and Winner's lists. Nevertheless, although not formulated as a specific research question, it was a focus of interest in this research to determine whether any of the Lithuanian teachers involved in these studies subscribed to any of these beliefs.

It was hoped that by understanding the interdependence between the definition of giftedness and the identification process, Lithuanian teachers could become better informed to diagnose, and not misdiagnose gifted children, since an accurate diagnosis underlies the teacher's ability to create appropriate provisions for gifted students in their classrooms.

3.3 Identification of Intelligence

In addition to the problematic term of ‘giftedness’ there is the problematic term ‘intelligence.’ Giftedness has been defined according to both the psychometric concept of high ability, in terms of the nature of extraordinary achievements in specific areas, and according to the cognitive concept, in terms of competence versus performance (Gagné, 1985; and Heller, 1991). Such concepts cannot be realised, it has been argued, using a one-dimensional measurement of IQ alone, as was popular in the United States thirty years ago (Gardner, 1985; and Sternberg & Davidson, 1986).

To this end, the term ‘intelligence’ can be translated into Lithuanian in two ways (Juceviciene, 1999: 1):

- *Intelektas* (intellect) – Intelligence signifies a person’s mental abilities or potential that represent the classical psychological concept of ‘things in itself’ methodology;
- *Inteligencija* (intelligence) – Intelligence is based upon the operational approach and represents a modern psychological multidisciplinary approach.

Juceviciene (1999: 1) lists the following multidisciplinary approaches to intelligence from a Lithuanian perspective:

1. Intelligence implies optimal use of available resources by individuals, organisations, and governments, enabled by their mental or other potential, to achieve efficient interaction with the dynamic environment;
2. Intelligence is a bio-psychological potential of individuals and social systems to exploit the resources whilst engaging in the interaction with the dynamic environment by identifying and solving problems;
3. Performance intelligence implies efficient achievement of goals of the agent (individual, organisation, or country), when integrating with the dynamic environment the resources are optimally exploited;
4. Social intelligence is the ability of the social life agents (individual, groups, organisations, governments) to communicate efficiently, identifying and solving the problems;
5. Educational intelligence implies efficient achievement of the educational aims of the country, organisation (i.e., school), individual (education goals in case of the teacher, self-education goals in case of

the student), when interacting with the dynamic environment the resources (intellectual, informational, material, financial) are optimally used;

6. Intelligence as the process is the activity of the agent by which he conveys to the receiver the knowledge required to make decisions in pursuing the specific aim;
7. Intelligence as organisation is the organisational entity which identifies knowledge users and provides these decision-makers with the required, especially selected and processed information;
8. Intelligence as knowledge or knowing implies information organised in such a way which enables the agent to possess this knowledge to make a specific efficient decision, and
9. Intelligence as knowing or knowledge is also the product of the intelligence process. When developing a multidisciplinary approach to concept of intelligence, it might be useful to give special attention to its cultural aspects.

As a whole, this approach is quite different from the Multiple Intelligence Model of Psychologist Howard Gardner (1983) [Section 3.3 and Figure 3.1]. Gardner examines intelligence in a non-traditional way using his Multiple Intelligences Model [Figure 3.1]. He proposes a pluralistic view, in contrast to the classical belief of only one representational model of mental functioning defined by an IQ test. Gardner has not settled on a fixed definition of 'intelligence,' but has developed a multiple intelligences approach centred on a core of seven intelligences and built on preference style of learning:

- (1) Musical;
- (2) Spatial;
- (3) Inter-personal;
- (4) Intra-personal;
- (5) Logical-mathematical;
- (6) Bodily kinaesthetic, and
- (7) Linguistic.

His investigation continues with the addition of new intelligences, i.e., 'art,' 'naturalist,' 'existentialist,' and 'spiritualist.'

Because Gardner's model offers a broader framework than simply logical and linguistic intelligence, it has implications for teachers to use a different approach to teaching material by matching it with a pupil's learning style. Gardner's model

recognises personality traits to identify individual strengths or talents as opposed to the problem-solving focus of Juceviciene (1999).

Gardner's Multiple Intelligences (MI) Model contrasts with Juceviciene's (1999) approach to intelligence. Juceviciene (1999) analyses the concept of intelligence from a multidisciplinary and evolutionary viewpoint that focuses on the possibilities of knowledge development in an informational age. Intelligence and ability are demonstrated by performance and problem-solving. Intelligence is revealed when pupils are confronted with an unfamiliar task to problem-solve in an unfamiliar environment, but is not domain-specific like Gardner's. This is somewhat different than the assessment schemes proposed by Maker (1986) and Eyre (1997), both of whom look at problem-solving in culturally relevant environments. The Lithuanian construct of intelligence also centres upon learning within culture, and conceptually falls within a social constructivist approach such as that articulated by Vygotsky (1962).

Contrary to tests that examine intelligence as a global characteristic, some psychologists suggest intelligence is a multidimensional construct in which individuals possess one or more varying levels of ability (Gardner, 1993; and Guilford, 1977). Sternberg (1985; 1988, and 1996) suggests a Triarchic Model of three main types of intelligence:

1. Analytic, referring to the academic talent measure by intelligence tests;
2. Synthetic, referring to creative intelligence, coping with new ideas and insight;
3. Practical, involving the ability to apply analytic and synthetic skills successful to real-life situations.

Thus, having high intelligences depends not only on how well an individual can use these three types of intelligences in at least one domain, but in the balance of the three areas. It is interesting to note that Sternberg's Triarchic Model (1985) has not had the same impact on the world as Gardner's Multiple Intelligences Model (1983).

Figure 3.1 Gardner's Model of Multiple Intelligences (1983)

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Because his Multiple Intelligences Model helps to explain individual differences in various types of mental performance, educators embraced his framework as a tool for understanding, and teaching about, human intelligence; learning style; personality; and behaviour. Gardner's model illustrates the argument of researchers (Detterman, 1993, as cited in Bock & Ackrill, 1993; and Winner, 1996) that it is possible for a pupil to be gifted in one or more areas, whilst also having weaker areas. The reality is that children are oftentimes unevenly gifted; they may be gifted in one area, but average or learning-disabled in another area. This concept might be an aspiration for Lithuanian teachers: to understand how to address and provide for the various needs of gifted learners in the classroom based upon their students' demonstrated strengths and areas of interest.

It can be argued that Gardner organises intelligences in a vertical, rather than horizontal, set of general abilities, which contrasts with much of the language and logic of theorists who believe there is only one kind of intelligence and that either a

person has it or does not (Morris, 2008). His critics call for a more organic view of intelligence, and caution that although the Multiple Intelligence Model helps to understand overall personality, preferences and strengths, there will always be a mixture of these elements in every individual (Morris, 2008).

As noted previously, to address this factor, Gardner (1999) later considered the existence and definitions of other possible intelligences worthy of inclusion within the model: moral intelligence, spiritual intelligence, existential intelligence, and naturalist intelligence. Even though Gardner settled on the last two, he extended the Multiple Intelligences framework beyond the original seven intelligences.

The human brain is unlikely to function via Gardner's multiple intelligences. Taking together the evidence for the inter-correlations of sub skills of IQ measures, the evidence for a shared set of genes associated with mathematics, reading, and g, and the evidence for shared and overlapping "What is it?" and "Where is it?" neural processing pathways, and shared neural pathways for language, music, motor skills, and emotions suggest that it is unlikely that each of Gardner's intelligences could operate 'via a different set of neural mechanisms' [as Gardner claims] (Waterhouse, 2006: 213).

Although Gardner's model was based using developmental, clinical, case study, and educational evidence, any over-reliance or extreme interpretation of this or of any other tool can be harmful. Thus, the definition of intelligence, along with the definition of giftedness, has been a subject of debate for the education sector for many years.

3.4 The Identification of Gifted Learners: Models of Giftedness

Because gifted identification has been a topic of debate for so long, many models have surfaced that address the identification process. This study examines some of the more well-known North American models, which the researcher introduced to Lithuanian teachers during the professional development programme in 2003. The study looks at Renzulli's Three-Ring Conception of Giftedness Model (1977) and then examines Gagné's Differentiated Model (1985) and Tannenbaum's Psychosocial

Model (1986) to present a different take on the process of giftedness. Because some Eastern European countries from the former Soviet block, e.g., Slovenia, had already accepted Renzulli's definition of giftedness (Ferbezer, 2003), the Renzulli Three-Ring Conception of Giftedness Model was recommended by the researcher as the most reasonable approach to use in the Lithuanian transition from communist to a post-communist educational ideology.

Joseph S. Renzulli introduced the Three-Ring Conception of Giftedness Model [Figure 3.2] to represent a three-dimensional construct of gifted children who exhibit behaviour in three areas: (1) above average ability; (2) task commitment and (3) creativity (Renzulli, 1977). Renzulli cautions that no single ring or cluster creates giftedness; rather, it is the interaction among all three areas that is necessary for creative and productive accomplishments. This model does not rely on IQ or test scores as sole indicators of giftedness; instead, it offers a perspective for analysing how children can be gifted in several ways.

Renzulli's Three-Ring Conception of Giftedness Model provides a distinction between academic proficiency and creative productivity, and has application for all performance areas. According to Renzulli, gifted and talented children are those capable of developing this composite of characteristics, and then applying them to any potentially valuable area of human performance. Children who exhibit or are capable of developing a combination of these cluster areas require a wide range of educational opportunities and services that are not necessarily provided for during regular classroom instruction.

Figure 3.2 Renzulli's Three-Ring Conception of Giftedness Model (1977)

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Based on subsequent research, Renzulli (1977) developed the Enrichment Triad Model [Figure 3.3] to expand upon the three-ring concept of giftedness.

Figure 3.3 Renzulli's Enrichment Triad Model (Renzulli, 1977)

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The Enrichment Triad Model proposes learning for all students, not just the gifted, at three stages of development. Although the model focuses on creativity, it presents a challenge to students at different levels of learning; all students in the classroom can be exposed to the first two levels. The third level, however, is most appropriate for challenging gifted children and highly motivated individuals or small groups with investigative opportunities of real-world problem-solving through an independent study (Renzulli & Reis, 1986 and 1997).

The Enrichment Triad Model (Renzulli, 1977) suggests a broad range of grouping arrangements, all of which are based upon common areas of ability, interest, learning style, and preference. The model supports three levels of facilitating knowledge and encouraging creativity in the classroom through the service-delivery of Type I, II, and III activities:

- Type I activities are general exploratory experiences, which are designed to motivate and challenge the pupil in his or her learning. Type I activities include printed material, electronic media, field trips, guest speakers, etc. They are intended to deepen or broaden the core curriculum. Type I activities would be an appropriate place to offer enrichment during the school day in Lithuanian classrooms. These activities require little or no money and offer an opportunity for the students' parents to become involved in their child's education as a guest speaker, field trip chaperone, etc.
- Type II activities are group training, skill-based activities, in which students learn and apply new skills. Type II activities include creative and critical thinking, problem solving, decision making, affective process, research and communication skills, and how-to-learn skills. Lithuanian parents can become involved in their child's education by presenting hands-on workshops to teach children in areas of their own expertise, e.g., calligraphy, carpentry, etc. These activities could be similar to what gifted Lithuanian children experience at summer camp.
- Type III activities are independent studies in which a student, through research and problem-solving, becomes an 'expert' in producing something of value for the 'real world.' The student initiates the idea for the study. Examples of Type III activities may include writing and performing an original piece of music for an audience, developing and implementing a plan to benefit a local homeless shelter, creating and teaching a lesson to young children about ways to save the environment, learning a computer language and programming in that language, etc. Involving students' parents as mentors in an independent study is another opportunity for the parents to share their areas of expertise and contribute to 'authentic' learning.

Applied in the classroom context, Renzulli's Enrichment Triad Model (1977) expands into the Schoolwide Enrichment Model (SEM) (Renzulli & Reis, 1997) [Figure 3.4]. SEM serves as a framework to organise additional elements of the model. It is comprised of the total talent portfolio, curriculum modification techniques, enrichment learning and teaching, and service delivery components. The SEM encourages students to capitalise on their strengths by becoming autonomous leaders (to realise their potential and assume ownership for their learning). In this context, the role of the teacher is one of facilitator of learning to identify and develop gifts and talents of all students.

This systematic management plan offers curriculum modification techniques to enrich learning in the regular classroom, in enrichment clusters, and in the continuum of

special services. Students are in charge of managing a portfolio of interest areas, performance indicators, instructional styles and preferences in the learning environment, instruction, thinking styles and expression. Portfolios are used as exemplars of performance-based assessment and are considered supplemental or replacement information for standardized tests. It was hoped that this pedagogical structure for an all-inclusive schoolwide enrichment approach, in contrast to the top-down communist pedagogy, would support Lithuanian teachers' work on creativity, critical thinking, and problem-solving for all learners, including the gifted. Thus the Renzulli approach could incidentally serve to reinforce Lithuanian's educational reform goal of promoting the individual student as an active learner.

According to Renzulli and Reis (1997), because each gifted learner is unique, teachers need to create opportunities for them to investigate real-life problems through independent studies and share their products or outcomes with authentic audiences. In this way, content and process merge and become meaningful, and students enjoy learning (Renzulli & Reis, 2007). Through authentic problem-solving and interest-based learning, Lithuanian students might develop a love of learning that could impact positively on the rising school drop-out rate and brain-drain in the country.

Figure 3.4 Renzulli and Reis's Schoolwide Enrichment Model (1997)

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In the Schoolwide Enrichment Model, Renzulli and Reis (1986) suggest two kinds of giftedness, 'Schoolhouse Giftedness,' i.e., academic giftedness, and 'Creative and Productive Giftedness.' Critics point out this dichotomous view of giftedness is problematic in nature because the elements overlap more than they are separate and different (Johnson, 1999; Olszewski-Kubilius, 1999). To be highly creative, an individual must have sufficient prior knowledge and be able to integrate and evaluate it (Geake & Dobson, 2005). Eminent creative individuals, for example, were found to have been voracious readers when they were children (Olszewski-Kubilius, 1999).

Both the Renzulli Three-Ring Model (1977) and the Enrichment Triad Model (1977) do not specify an identification system or curricula for young gifted children, i.e., those in preschool or kindergarten. Many researchers are advocates of early identification of giftedness (Matthews & Foster, 2005; Ruf, 2005; Maker, 1982; 1986), yet, the elementary years are a time when most standardized achievement tests are not used (Olszewski-Kubilius, 1999). Currently, this is not a problem for Lithuanian schools that focus on gifted identification in Grades 4 - 8 [Chapter 5]. However, it can be inferred that the schools will want to identify younger students in the future. To obtain data on younger children in the identification process, Lithuanian teachers will need appropriate tools, i.e., rating scales or observation lists, and appropriate curricula. Arguably, this discrepancy poses a challenge for Lithuanian teachers to design their own culturally-appropriate materials and provide resources for young gifted learners.

The Enrichment Triad Model (Renzulli, 1977) has been criticised due to its focus on enrichment and not acceleration. Little attention is paid in this model to acceleration beyond provision of an optional independent study programme for gifted learners or high achievers. But, it cannot be assumed that in doing Type III activities that gifted children have to think faster. Therefore, opportunities for acceleration must be addressed for those gifted Lithuanian students who score exceptionally well on the Olympiads, but do not qualify for the *gymnasium* schools.

Often in schools, teachers cannot take time from the regular curriculum to provide for the Schoolwide Enrichment Model's Type I, II, and III activities (Gentry, Moran, and Reis, 1999). Subsequently, the demand for extra time and materials required of both students and teachers in Lithuania would prove to be difficult, especially for those teachers who have a second job. An alternative method would be for Lithuanian teachers to integrate the Renzulli SEM activities into their regular curriculum.

Van Tassel-Baska (2008) argues the necessity of well-constructed product assessments for teachers when evaluating Type III learning. This issue becomes one of choice: do teachers need to create their own assessments of learning or rely on those already available to meet the product's technical adequacy? Renzulli and Reis (1994) acknowledge the inability of the many goals and outcomes of the Enrichment Triad Model to be formally assessed and measured because many learning outcomes rely on the skills that students achieve, which may not be readily apparent. Unfortunately, Lithuanian teachers do not have the time, nor do they have the resources to create assessment and evaluation tools. Furthermore, Lithuanian teachers cannot proceed to implement any new initiatives without the consent of their Ministry of Education and Science. It would, however, be useful for these teachers to gather data assessing student outcomes for not only evaluate the performance of gifted pupils, but for the additional purpose of securing external funding.

The Enrichment Triad Model (Renzulli, 1977) is built upon the premise that there will be schoolwide implementation and support. However, the implementation of the Enrichment Triad or Schoolwide Enrichment Model will not be successful if teachers are not trained in the model or are reluctant to give up their traditional practices to change (Renzulli, 1998, as cited in Baum et al., 1998). Unfortunately, this poses a problem for Lithuanian schools; without outside financial resources, the Ministry may not be able to provide the funding for professional development of Lithuanian teachers. Lithuanian teachers will need in-service training provided by continued efforts of APPLE or other voluntary international organisations to support the implementation and sustainability of the Renzulli model. Because of the perceived shortcomings of the Renzulli model, different models are preferred in other countries.

One of the most universal definitions of giftedness comes from the Differentiated Model of François Gagné [Figure 3.5], who makes a distinction between children who are ‘gifted’ and ‘talented, which, he argues, was not apparent in Renzulli’s Triad Enrichment Model (1977).’ Gagné’s model defines giftedness as possessing and using untrained and spontaneously expressed natural abilities, aptitudes, or gifts. Talent is designated as a superior mastery of systematically developed abilities or skills and knowledge in at least one area that places achievement in the upper 10%.

Gagné (1985) introduces the importance of ‘chance’ as an influential factor. For example, through the recombination of paternal genes, the type and extent of giftedness a child possesses is a matter of chance. Chance also applies to circumstance, e.g., being in an accident or meeting an influential adult, not just genes. His model also acknowledges the importance environmental influence as well as other factors that impact development of natural abilities into areas of performance. Unlike other models, Gagné’s Differentiated Model accounts for recognising gifted underachievers, who may not be working to their full potential, through the mediation of the intra- and inter-personal factors that impact the developmental process, as indicated in the diagram of the model [Figure 3.5] (Gagné, 1985). This explanation may offer new insight for those Lithuanian teachers who had not previously considered the possibility of underachievement in the identification process of gifted children.

Figure 3.5 Gagné’s Differentiated Model of Giftedness and Talent (1985)

(Removed for copyright reasons)

Because Gagné looks at a wider test-base than only the top 5% of the population, his viewpoint is that up to 15% of the child population can benefit from a differentiated academic programme. This model might be beneficial for Lithuanian teachers and parents to understand the developmental process of the ‘whole child’ because the mediating factors apply to every child. The model does not, however, offer a prescribed procedure for gifted identification that can be easily implemented in the classroom. Although this is an inclusive and popular model, the definition by Gagné is only one of many.

Similar to Gagné’s Differentiated Model, Abraham J. Tannenbaum developed the Psychosocial Model of Giftedness (1986) [Figure 3.6] that separates special abilities and talents and includes the element of environmental impact on giftedness. Like in Gagné’s model, ‘Chance’ is introduced as the concept of being at the right place, at the right time and of the ‘right’ social values.

Figure 3.6 Tannenbaum’s Psychosocial Model of Giftedness (1986)

(Removed for copyright reasons)

Tannenbaum’s model (1986) also adds a psychosocial dimension for the identification of gifted children. In his model, the potential is to become highly acclaimed

performers or exemplary producers of ideas which will enhance the moral, physical, emotional, social, intellectual or aesthetic life of the society. Tannenbaum's (1986) psychosocial approach to giftedness embraces several areas: special and general ability, environmental, chance, and non-intellective factors. These factors, however, emerge at different times throughout an individual's life. Although this model does not lend itself as a clear identification tool for Lithuanian teachers or one that can be easily implemented in the classroom, it does increase awareness of the psychosocial factors of giftedness. Tannenbaum's model may be of special interest to Lithuanian parents of gifted children in understanding the importance of their role to nurture and support their child's giftedness.

Utility in identification was the key factor in determining which model would be most useful in the professional development programme. Renzulli's Three-Ring Conception of Giftedness Model (1977) was chosen for several reasons. It seemed to best fit the criteria because it contains only three elements as opposed to Gardner's model (1983) of seven, Gagné's model (1985) of five, and Tannenbaum's model (1986) of five. Creativity, now highly regarded in the Lithuanian culture, was one of the three main concepts of giftedness in Renzulli's model. The Renzulli Enrichment Triad Model (1977) also contained three levels of learning that could benefit gifted pupils, along with an entire class, whilst offering additional implications for schoolwide enrichment. Renzulli's Enrichment Triad Model (average ability, creativity, and task commitment) seemed both practical and possible for Lithuanian teachers to address in their classroom when compared to the theoretical elements from the models of Gagné, Gardner, and Tannenbaum.

3.5 Identification of and General Provisions for Gifted Pupils

Since gifted children have various preferences and learning styles, many educators have argued that it is important to match the way a student learns with the way the material is delivered (Gardner, 1983; 1999), despite research which shows that such attempts have no significant effect (Coffield et al., 2004). Moreover, such theorising seems somewhat limited when considering the potential and varied abilities of gifted children. Talents can be witnessed in young children who have not had formal training, i.e., children who are voracious readers or demonstrate exceptional

mathematical reasoning ability and memory (Alvino, 1995; Jackson & Roller, 1993). Gifted and talented children often think more quickly than they write, understand in greater depth, exhibit greater curiosity, pose questions beyond their years, or retain details which others may forget (Waxman, et al., 1996a; 1996b).

Consequently, when used in combination with other multiple criteria such as performance assessment, traditional intelligence tests have proven useful to identify gifted children, and especially useful to identify those who are underachievers (Davis & Rimm, 1998). Because children's abilities change throughout their academic careers, Eyre (1997: 35) cautions that: 'children may outthink the test or underperform due to the linguistic bias of the tests.' Therefore, it is necessary to carefully select identification tests so that no single test is used to include or exclude students from a gifted programme (Ford & Harris, 1999), but, rather, multiple methods are employed for gifted identification.

There are many options to consider in the identification of gifted pupils in addition to intelligence tests and performance assessment. Eyre (1997) examines several ways to identify gifted children: teacher nomination, teacher assessment, testing, pupil nomination, and parental nomination. Although testing and teacher nomination are two of the most commonly used methods in schools, these methods also have their limitations.

Whilst the use of teacher nominations to identify gifted students is not new (Hunsaker et al., 1997), this method has been quite controversial. Kaufman and Harrison (1986) report teachers have a tendency to be biased, especially when identifying culturally diverse students. Pegnato and Birch (1959) view teacher nominations as an ineffective and inefficient identification process; therefore, they recommend testing. Hany (1993, as cited in Heller et al., 2000), however, argues that teachers can adequately judge giftedness in children. Despite such disagreement, with proper training to recognise giftedness, teacher nominations are useful tools in the gifted identification process when giftedness is not in evidence from standardized test scores.

The best practices in gifted education suggest the use of multiple measures and multiple sources to assess and serve gifted pupils: observations, performances, products, portfolios, interviews, all of which are used in different contexts both in and out of school. Measures such as observing the child interacting in a variety of learning opportunities can be particularly useful for identifying gifted students from non-traditional backgrounds (Rogers, 2002; and Ford & Harris, 1999). Thus, to offer a more complete depiction of a gifted child's potential and abilities, a composite of identification methods were made available to Lithuanian teachers in the professional development sessions.

The representation of minority students in gifted identification and programmes presents another topic for debate. Ford and Harris (1999: 59-60) argue the importance of making adjustments to increase the proportion of minority students in gifted programmes. Arguably, making adjustments compromises standards and is unfair to students who meet the traditional criteria. Several options, however, can be pursued: renorming the tests based on local needs; using subgroup norms established by test developers for each minority group; using alternative instruments that are believed to measure the same construct, and basing placement decisions on multiple assessment criteria (Ford & Harris, 1999). In Lithuania's identification of gifted children, it was advisable that school professionals and parents not overlook children of minority groups (i.e., Armenian, Belarusian, Estonian, Polish, Russian, Romanian, Tartars, and others), but rather, recognise their unique gifts and intelligences through 'social inclusion.'

Once gifted students have been identified, appropriate provisions need to be made both inside and outside the classroom. It is important to extend the pedagogy for gifted children in the regular classroom because giftedness can occur in different people at different times, and under different conditions (Renzulli & Reis, 1995). Like all pupils, gifted children require appropriate challenges stimulation and motivation to want to learn (Meek, 1982; and Kanevsky, 1994). Gross (1997) reports on the motivation orientation of academically gifted pupils in Australia, and finds them to be significantly more task-oriented than their age-peers because they focused on tasks and strategies, rather than on ego-oriented desires for high grades or

recognition. Their level of intelligence affects how children learn, and there is more to giftedness than how students perform in school (Ruf, 2005).

Adequate provision for the gifted can be provided through differentiated activities such as ability groupings or settings within the classroom or school, and through extra-curricular activities or enrichment and/or extension. George (1997) and Dean (2001) suggest that schools devise policies for gifted pupils to ensure equity of provisions throughout their schooling. It is important that pupils who demonstrate learning abilities higher than those of their peers are offered appropriate options (Colangelo et al., 2004).

These appropriate options can be in the form of grade or subject acceleration work that is incrementally more complex. Observations of gifted children reveal they learn more quickly and easily than other children (Clark, 1997). Further, Geake and Vialle (2002: 313, as cited in Vialle & Geake, 2000) claim that: "More of the same is neurologically unnecessary, and may be counter-productive." Acceleration allows gifted children to work at a challenging pace suited to their ability and will motivate them to learn more. This material can be derived from established curriculum but offered at an advanced level of a year or two above a student's grade level. To accommodate the needs of gifted pupils, acceleration can also offer the opportunity to take examinations earlier.

Despite its potential advantages, acceleration for gifted pupils often resisted by teachers. In an international study, Geake and Gross (2008) found teachers were mainly concerned with over-isolated socialising of gifted children. It was feared that acceleration could lead to a social elitist attitude. Leyden (1985) stresses that gifted pupils who are not socially capable of being accelerated will not adjust. Freeman (1998) finds acceleration may cause some children distress because they do not have the necessary life experiences to grasp some intellectual concepts. Subsequently, enrichment offers a solution that allows gifted children to stay among their peers and receive the required learning extension.

Classroom and schoolwide enrichment activities give teachers the opportunity to offer the breadth and depth in their curriculum that is not necessarily offered in the regular

or national curriculum (Casey & Koshy, 1998; Gardiner, 1998; George, 1997; and Tomlinson, 1999). Eyre and McClure (2001: 4) state that: ‘enrichment programmes [either] invoke strong support [or bring] extensive criticism in the research literature.’ Whilst enrichment gives pupils a chance to pursue their interests and gain deeper knowledge of the material, it is arguable that the pace of learning with peers in a classroom situation can be a source of frustration for gifted learners.

Consequently, Colangelo et al. (2004) argue for acceleration, claiming that enrichment may not necessarily be the answer. Many researchers argue that some children are actually better adjusted than their peers when accelerated with grade advancement (Van Tassel-Baska, 1983; McLeod & Cropley, 1989; Gross, 1997; Freeman, 1998 as cited in Heller et al., 2000). To the contrary, Eyre and McClure (2001) caution that gifted children who are accelerated may become isolated and ostracized from groups. Similar findings suggest a child needs to be advanced a grade, however, only after a thorough assessment of the total situation and when accompanied by appropriate counselling of everyone involved (McLeod & Cropley, 1989). Acceleration is an option to be carefully considered when addressing the needs of the gifted.

An increasingly popular strategy effective for gifted learners in American classrooms is Problem Based Learning (PBL). PBL is driven by giving challenging, open-ended questions to groups of children that allow them to engage in real-world problem solving. This approach seems to heighten the interest and motivation of gifted children without a loss of content mastery for the academic subject area or without affecting the interest of other students in the classroom (Gallagher & Stepien, 1996). PBL, as exemplified in the Enrichment Triad Model’s Type II and III activities, is conceptually similar to the Russian Olympiad competitions that were familiar to the Lithuanian culture.

Marr and Sternberg (1986) analyzed the ability of gifted children to master the comprehension of a task and solutions they find. In 1986, Sternberg and Davidson reported on the ability of individuals accept with novelty solving insight problems and examined how cognitive processes form the basis for intelligent thinking when they are performed in innovative ways. Similarities also can be extended to the Discover

Identification Model of Maker (1986), which involves complex problem solving in a culturally relevant context, and to the English Model by Eyre (1997), which emphasises identification through differentiated provision (varying the delivery of teaching methodology).

The Purdue Three-Stage Model (Feldhusen & Kolloff, 1986, as cited in Renzulli, 2008; and Moon, 1993) and The Autonomous Learner Model (Betts, 1991) focus on children developing personal and social responsibilities. Van Tassel-Baska (1993, as cited in Heller et al., 2000: 345) notes the key beliefs and assumptions that have guided thinking and curriculum theory in gifted education:

1. All learners require a curriculum with opportunities that allow them to attain optimum levels of learning;
2. Gifted learners have different learning needs compared with typical learners. Therefore, curriculum must be adapted or designed to accommodate these needs;
3. The needs of gifted learners cut across cognitive, affective, social, and aesthetic areas of curriculum experiences;
4. Gifted learners are best served by a confluent approach that allows for accelerated and advanced learning, and for enriched and extended experiences;
5. Curriculum experiences for gifted learners need to be carefully planned, written down, and implemented to maximize potential effect, and
6. Curriculum development for gifted learners is an ongoing process that uses evaluation as a central tool for future planning and revision of curriculum documents.

The extents to which the various curriculum models and approaches meet these six criteria reveal varying degrees of successful application. The Renzulli Triad and Schoolwide Enrichment Models (SEM) embrace the above criteria through curriculum enrichment and differentiation. Type I, II, and III activities [Section 3.4] present multiple schoolwide enrichment opportunities for student choice. By offering varying levels of challenge, pupils become motivated to perform at optimum levels. Type I activities are intentionally designed to expose children to various content and experiences. Because gifted learners have different learning needs than typical learners (Rogers, 2002; Ruf, 2005; Silverman, 2000; and Winner, 1996), Type II activities offer small groups gifted children effective skill-building opportunities of learning in greater depth and breadth than in the classroom. Type III authentic investigations are individual interest-based independent studies that oftentimes requires a mentor. Because Type III learning provides for acceleration, the teacher and student need to carefully plan an individual Management Plan for Individual and

Small Group Investigation (Renzulli & Reis, 1997) that clearly communicates objectives and outcomes. SEM does not rely on one particular curriculum; rather, because student experiences and learning vary, the program remains flexible to meet individual needs. Curriculum development is thus an ongoing process. In addition to school-situated provisions of enrichment, recent years have seen the opening of university-based centres for gifted children, including a new Lithuanian initiative, the Educational Centre for Gifted Youth in Lithuania.

The National Academy for Gifted and Talented Youth (NAGTY), founded in 2002 in the UK, promoted what was referred to as The English Model. It provided for gifted pupils from within the ordinary school classroom by differentiating the curriculum and integrating pupils with their peers as much as possible (NAGTY, 2006; Campbell et al., 2007). NAGTY also provided opportunities for gifted pupils during a summer school. Integrated education, however, does not imply that all provisions for gifted pupils are delivered in the regular classroom to the exclusion of specialist's provisions. Gifted children are not a homogeneous group. Their intellectual development varies and some children learn more quickly than others (Tomlinson et al., 2002), a factor which can be problematic for both teachers and parents. Although The English Model approach raised systemic performance by focusing on nurturing strengths while mitigating gifted children's weaknesses, it was closed by the UK government in 2007.

In the United States, the Centre for Talented Youth (CTY), the largest talent search organisation, is associated with Johns Hopkins University in Baltimore, Maryland. The CTY, founded in 1979, offers intensive and fast-paced courses targeted for gifted students in Grades 2 - 8. These courses are taught by instructors in both residential and day-school settings. CTY has campuses in Ireland, Spain, Bermuda, and Thailand. It is associated with the NAGTY in the UK.

In 1991, the Gifted Education Research, Resource and Information Centre (GERRIC) at the University of New South Wales, Australia, was founded. Since the Centre formally opened in 1997, it has been providing a variety of programmes for gifted children, parents and teachers. GERRIC offers a strong focus on excellence in both teaching and research.

In 2002, a specialised school called the Educational Centre for Gifted Youth in Lithuania was established in Vilnius. The intent was to address the special abilities of gifted children in a changing society. Similar to the Russian boarding school *gymnasium* system, the Centre matches gifted students with university professors and experts for coursework throughout the country.

Funding for the Educational Centre for Gifted Youth in Lithuania was secured from the Foundation for Educational Change (2002) to organise English programmes, summer camps, professional development for teachers, resources for current gifted topics, collaborative teacher/student Internet research, and gifted education curricula. This centre exemplifies the implementation of policy at both the local and national levels to promote educational opportunities for gifted children. The Lithuanian Centre is somewhat similar to the system of special schools offering special programming for gifted children in Russia during the 1990s. Russian specialised schools admitted students who exhibited high achievement in the entrance examinations administered after completion of elementary school but did not offer any programming for younger gifted children or those who were underachievers (Shcheblanova & Shumakova, 2007). The new Lithuanian programme is novel because students can secure a foreign psychological scholarship and receive training in creativity (Grakauskaite-Karkockiene, 2006).

3.6 Development of Gifted Education in Lithuania

As outlined in Chapter 1, following its independence, Lithuania revised the country's educational legislation based upon core principals of the European Union, European Council, and UNESCO. The reform involved three documents which guide the educational restructuring in Lithuania: *The Law on Education* (adopted 1991, a new edition prepared and drafted 2002), *The General Concept of Education* (1992), and *Education for All* (2003). These laws promoted the fundamental principles of Lithuanian education as humanitarianism, democratisation, nationalism, and innovation.

Education for All was of particular importance to the field of gifted education because, whilst it provided for all pupils, it especially implicated the gifted.

Specifically, Goal 1.1 states that ‘the education system guarantees to all residents of Lithuania a basic education that is of high quality and appropriate to the needs, interests, and capabilities of each learner’ (National Education Forum, 2003: 2; Vebraite, 9 October 2004). Goal 3.14 continued with provisions for the gifted, namely, to create a system of pedagogic-psychological services that will extend the accessibility of basic and secondary education to children with various exceptional needs. Goal 3.15 provided for the gifted even more explicitly: ‘to draft and implement programmes providing pedagogic advice and consultations to parents raising special needs children . . . especially [the] gifted’ (National Education Forum, 2003: 5).

These goals are consistent with the general principle, and specific concern, that gifted and talented youth are a country’s major natural resources (Feldhusen & Jarwan, 1993, as cited in Heller et al., 2000). Prior to 1940, the identification of gifted pupils in Eastern-European countries was non-existent. The brightest and most gifted Lithuanian pupils studied at the *gymnasia*, which in Lithuania continued the Soviet tradition of offering students accelerated work. Obviously this policy was not influenced by the models of giftedness from the West such as those of Renzulli (1977). Nevertheless, the Lithuanian practice seems to be in line with the Autonomous Learning Model of George Betts (1991). Similar to the Autonomous Learning Model, *gymnasia* students are a select group of brightest children enrolled in small classes who have opportunities to develop close relationships with their teachers. Teachers serve as personal advocates and coaches and provide the personal attention that motivates individuals in their academic studies and encourages them to learn more.

A former *gymnasium* student reflected:

My teacher at the *gymnasium* motivated me to become a teacher, and then, later, an environmental manager. I always remember her story that a person is like a bird: it has two wings, one for family and the other for career. We need both to be strong enough to fly.

(Interview. *Gymnasium* Student M. R. 28 January 2003).

Unlike secondary schools, in which teachers find they must ‘teach to the middle’ to accommodate all learners in the classroom, *gymnasium* teachers can ‘teach to the top,’

as recommended by Gross (1997). Because many teachers at *gymnasia* are also professors at the affiliated university, they are highly respected by the community for their intellectual endeavours and for setting high benchmarks for their students. It is fairly common, therefore, for successful *gymnasium* students to continue their undergraduate studies at the associated university with the same professors.

The current situation of gifted education in Lithuania can be compared with that of post-Soviet Russia. Because *perestroika* was a time for great possibilities and restructuring in the 1980's in the former Soviet Union, many new, innovative schools were organised with the government's encouragement. These experimental schools, in addition to having the appearance of private schools, were academic in nature and organised by people with scientific backgrounds. The tax and certification requirements imposed by the Lithuanian government caused many schools to fail; however, the opposite occurred in Moscow. Local authorities initiated the establishment of a school for gifted children called 'Intellectual,' which reflected the results of psychological evaluations (Zhilin, 2000). Students were selected for this school based upon high academic test results in the areas of mathematics, science, and languages.

The selection of pupils for these Russian 'Intellectual' schools was determined by a board composed of teachers and psychologists. Potential pupils usually were given a task to solve and communicate their answer to the board. Because the criteria were dependent upon the particular school, the process varied in levels of formality. Zhilin (2000) reports teachers made their decisions based upon their beliefs as to whether or not they could teach a particular pupil. He also notes that the disqualification of potential students was similar in schools, regardless of whether formal or informal entrance criteria were followed.

During this period in Lithuania, schools with a more demanding curriculum, called 'specialised' and 'accelerated,' or those with 'accelerated classes', came into existence. Although these schools maintained a fair enrolment process, they were received favourably only by some. The schools attracted gifted children from well-educated families, whose influence impacted the accelerated school's capability of providing the very best education (Zhilin, 2000).

Since the academic curricula in accelerated schools depended upon the practices in each school, the approaches varied from the classical Russian to those regarded as more innovative, such as Montessori, Rudolf Steiner, and Elkoïn-Davydov (Zhilin, 2000). Classical Russian approaches were used in state schools with a scientific emphasis. Private schools with a psychological emphasis used innovative approaches that focused on holistic or integrative lessons and activities, such as investigative expeditions to the countryside. This practice does not sound like acceleration in the way Gross recommends; rather, it is more like the recommendations of the Renzulli Enrichment Triad Model (1977) and the Renzulli and Reis Schoolwide Enrichment Models (1997), in which pupils participate in field trips, contests, competitions, and other such extracurricular activities.

Olympiads were organised by the government and local educational authorities and were assisted by the universities. In an Olympiad, pupils were challenged to solve a task within a certain time frame. The pupils who solved the most tasks were recognised as the intellectual winners. Other than exams, Olympiads were the only official form of assessment for gifted pupils. Many of the Olympiad winners and participants continued on to become famous scientists (Zhilin, 2000). An extension to Olympiads in Lithuanian schools today has been the participation in international competitions and Internet projects.

In the former Soviet Union, and more specifically in Lithuania, academic summer schools held during the 1970s offered further examples of the Renzulli Enrichment Triad and Schoolwide Enrichment Models. These summer schools targeted the needs of those children who wanted more academics. The schools were organised by volunteer students and young lecturers from the universities, and academics were taught informally in a countryside camp setting (Zhilin, 2000).

Despite the additional educational provisions made by the Olympiads and summer schools, gifted children in many of Lithuania's rural schools lacked equity of education. Although the legacy of the Russian system for educating gifted pupils was adequate, some critical problems remained. First, pupils in small towns did not have the same advantages or opportunities as children in the cities where accelerated

schools were plentiful and teachers focused on developing a child's intelligence. Second, most of the teachers in accelerated schools had a strong science background but they did not work well in junior schools; consequently, there was a shortage of science-qualified primary and intermediate school teachers, even in Moscow, but especially in rural Lithuania (Zhilin, 2000). This situation can be analysed through Gagné's Differentiated Model where giftedness may not actualise into talent because of imposing negative environmental catalysts (Gagné, 1985).

Similar to the Gagné Differentiated Model (1985), the concepts of 'talented' and 'gifted' are not understood as synonymous in Lithuania. According to Siaulytė (2006), the Ministry of Science and Education considers gifted and talented young people as those of high intelligence having unusual potential and ability in affective, cognitive, social, artistic, science, creative reading, and writing areas. Such students' problem-solving capabilities allow them to obtain and apply skills and knowledge in new situations. Consequently, Narkeviciene and Siauciukėniene (1999) argue it is important to acknowledge the multidisciplinary nature of and conditions for the development of talent to realise the potential of gifted children in Lithuania.

Although the term 'giftedness' is influenced by social norms and the considerations of a country (Tannenbaum, 1986), the concerns of gifted educators for effective provisions are international. Heller and Schofield (2000, as cited in Heller et al., 2000) report on the comparative representations of 'identification' of giftedness as a topic found in the World Conference for Gifted and Talented (WCGT), the European Council for High Ability (ECHA) and the Asian-Pacific Conference (APC) in 1991-1997. At the three conferences, the most dominant topics were education and instructional processes. 'Identification' was rated lower in the range of 3.5% (WCGT), 4.3% (APC), and 10.5% (ECHA).

Heller and Schofield (2000, as cited in Heller et al., 2000) examine topics that were most frequently addressed in the field's six leading journals: *Gifted child Quarterly* (GCQ), *Roepers Review* (RR), *Gifted Education International* (GEI), *Journal for the Education of the Gifted* (JEG) as well as *Exceptional Children* (EC) and *High Ability Studies* (HAS). A close look reveals 'Learning and Perception' ranked first and 'Identification' ranked second out of seven major themes. It seems likely then, that

how Lithuanian researchers and educators acknowledge the identification of pupils who are considered 'gifted' would be determined by the measurement tools, and by current international trends in gifted education.

3.7 Current Gifted Educational Provisions in Former Soviet Republics

After the break-up of the Soviet Union, all countries in Central Eastern Europe made continuous efforts to reform their education system. The role of education was understood as a stabilising factor in society that provided traditions, values, and common knowledge for individuals. Although policies and strategies for transitioning to a democracy differed among these countries, 'equality of access' and 'education for all' were common goals. Bethell (2003) identifies the aims of the Central and Eastern European Countries in transition:

1. Moving towards political plurality and increasingly democratic modes of governance;
2. Moving away from central control towards de-centralised governance and administration;
3. Moving towards a more open, civil society where the individual is given greater prominence;
4. Establishing (re-establishing) a strong national identity internally and internationally;
5. Promoting economic growth in a competitive global, market economy, and
6. Promoting greater political, economic and social collaboration and integration within Europe.

In 1997, the CEEC recognised general educational reform as a priority and recommended the need to review assessment, examination, and certification systems. Substantial and enduring reform of the national assessment and examination systems can result only when they are aligned to official policies relating to education and its future development. Consistent with Fullan's model, the most successful reforms occurred when governments included explicit objectives concerning assessment and examination in their legislation. Cerych (1997) points out four main characteristics of educational change experienced in Eastern Europe during this time:

1. Depolarisation of education, end of 'communist' ideological control of system;
2. Breaking down of the state monopoly of education by allowing the establishment of private and denominational schools;
3. Increased choices in schooling options, and
4. Decentralisation of educational systems management and administration, and the emergence of school autonomy.

Lithuania has made progress in all of the above areas, which includes the rationalization of the number of institutions, the establishment of coherent education legislation, the redistribution of educational property, and the redefinition of local finance and administrative control (Heyneman, 1998: 25). Evidence of political commitment at the education system level can be seen in Lithuania by recognising its quasi-independent national/regional assessment agencies, or examination centres (Bethell, 2003).

Given that no reform is perfect, the education systems of these former Soviet Republics were subjected to many transformations that reflected their particular culture and economic situation. International cooperation and human resources were important in their struggle to achieve the levels of provisions in developed countries and then become members of Western organisations (e.g., NATO and the EU). To better understand the development of gifted education in Lithuania, it is insightful to study the identification and provisions made for gifted children in some of the former Soviet Republics: Hungary, Latvia, Poland, Romania, and the Ukraine.

According to Monks and Pfluger (2005), legislative regulations and guidelines for gifted education are set by the school inspectorate in Hungary, and also Latvia, Poland, and Romania. Explicit legislative recognition of 'giftedness' is found the laws of Hungary, Romania, Poland, and the Ukraine (Monks & Pfluger, 2005; Heller et al., 2000). Like Lithuania's *Education for All* (2003), legal regulations serve to ensure equity education of each country's gifted children. Karkociene (2008) claims the Lithuanian Ministry of Education began an experimental project for gifted and talented youth (2007 – 2009) to develop a unified gifted educational system. The project involved teachers (Primary, Grades 5 - 8, and Grades 9 - 12), school administrators, and school psychologists from at least 25% of Lithuanian schools throughout the country. The goal was to organise workshops that would offer both theoretical and practical knowledge about gifted and talented education.

An overview of gifted identification in Hungary, Latvia, Poland, Romania, and the Ukraine reveals that all five countries required impressive high school grades and participation in competitions as they identified gifted students. Teacher nominations ranked second in importance in identifying gifted children in all countries, with the

exception of the Ukraine. Achievement tests, psychological tests, and institution-specific entrance criteria ranked third. Parent, expert, self, and other nominations were noted in only one to two of the countries. Interestingly, Romania was the only country to not offer specialised schools for the gifted.

Table 3.1 Identification and Provisions of Former Soviet Republics

	Hungary	Latvia	Poland	Romania	The Ukraine
School Grades	X	X	X	X	X
Competitions	X	X	X	X	X
Achievement Tests			X	X	X
Psychological Tests	X		X		X
Parent Nomination		X	NA		
Expert Nomination	X		X		
Teacher Nomination	X	X	X	X	
Other Nomination			X		X
Self Nomination		X	X		
Institutions – Self-made Criteria		X	X	X	
Specialised Schools	X	X	X		X

A more detailed description is reported on the identification and education of gifted children in the following Eastern Europeans countries.

Hungary

In Hungary, gifted students are part of a subgroup identified as having special needs. Hungary's identification of gifted students is based on several criteria in addition to in- and out-of-school achievement: teacher and former teacher nomination, expert

nomination, and standardized psychological tests (Monks & Pfluger, 2005: 78). In 1994, Hungary established the Centre for Gifted at the Budapest Institute for Educational Services. The Centre provides counselling for parents, enrichment programmes for gifted children, and teacher training.

The teacher-training programme at the University of Debrecen has been government regulated since 1997 and includes identification methods, courses in giftedness and creativity, and school programmes for gifted. These courses feature cooperation of school and family, address underachievement of gifted students, the special role of teachers, and the special fields of gifted education in music, math, and sports. Two organisations in Hungary arrange exchange programmes and European Union national and international conferences for gifted education specialists. There is funding and political recognition to establish legislation and invest money in research (Monks & Pfluger, 2005).

In 1999, the Ministry of Education organised a gifted programme to help disadvantaged gifted children who lived in small villages in Hungary (Herskovits, 2003). Mentor programmes play an important role at the Budapest Institute. The programmes involve middle school students in 12 different afternoon enrichment programmes and engage secondary school gifted students in university research. Seemingly, the concept of a centre for the gifted has been a successful practice to offer provisions for both gifted children and their parents.

The Bistric Centre of Croatia, similar to Hungary's Centre for the Gifted, was organised (1995) to also support extra-curricular enrichment programmes for gifted children in Grades 1 - 4 and to encourage the development of positive self-esteem (Lay, 2003). Influenced by experts and visits by institutions in Great Britain and the Netherlands, teacher training was offered in the Centre's programme.

Latvia

The Latvian Education Act (Article 28: 5) guarantees all children the right to develop to their full potential to become independent and creative individuals (Monks & Pfluger, 2005). Way (2003) reports on various educational opportunities for gifted children in Latvia who are not defined as part of a subgroup having special needs.

Gifted children are often identified implicitly by their achievement in the Olympiads. Specific provisions for gifted children are fully or partly financed by the state. There is no specific training for teacher work with the gifted; subsequently, gifted education has a shortage of specialists (Monks & Pfluger, 2005). There is a well-established process for the identification and promotion of giftedness in mathematics and languages (Way, 2003). Creative and performing arts classes, offered in 'interest' schools during after school hours, revealed a noticeable difference in pupil attitudes toward school and learning. Gifted children who volunteered to attend these classes placed a high value on education and viewed it as a means to improve the quality of life (Way, 2003).

Lessons taught during regular school hours in Latvian schools, however, present a wide range of teaching strategies for gifted pupils. Whilst there is no differentiation of advanced academic classes, specialised schools and summer camps serve to challenge gifted students. There is a strong emphasis on local, regional and national competitions, including the Olympiads. Other competitions are also available for gifted students in public speaking, music, arts, photography, and handicrafts. Latvia's Baltic neighbour, Estonia, boasts a Gifted and Talented Development Centre that offers extra-curricular activities in mathematics and science and a place where students have successfully competed in the international Science Olympiads (Tartu University, 18 May 2004).

Poland

In Poland, gifted students are formally identified at both the primary and secondary level by parent nominations and psychological exams conducted in pedagogical and psychological counselling centres. The diagnosis of giftedness results from a child's performance in contests and tournaments, i.e., Olympiads, which are seen as important challenges in creative thinking. No special schools exist to offer full-time training for teaching gifted students in the country. However, since 1999, Nicolaus Copernicus University has trained teachers in gifted education in topics of philosophy, creativity, learning techniques, identification and provisions (Monks & Pfluger, 2005).

Poland's education system reform in 1998 aspired to raise the society's educational level by promoting secondary and university education, levelling out educational opportunities, and fostering improvement in the quality of education (Monks & Pfluger, 2005). The Act of 7 September 1991 enabled gifted students to pursue individualised learning opportunities and acceleration. Children with high IQs can enter primary schools at an early age with options to pursue individual learning plans and receive assistance from individual mentors. Acceleration by skipping one or two grades also can be offered as an option.

Academic *gymnasia* with boarding school facilities accept students of 13-16 years old from all over Poland. After *gymnasia*, students enter the *lyceum* until the age of 19. Talented students can attend different levels of specialised schools for music, art, ballet schools, and sports.

Romania

Since 1995, although the Romanian Law of Education recognises high achieving children with outstanding abilities, the significance of the concept of giftedness was restricted to one dimension (IQ) and does not provide for underachievers (Monks & Pfluger, 2005). In spite of the legal recognition of individual differences, gifted education is only realised infrequently in practice. Olympiads serve as the prime identifier of giftedness along with parent nomination and psychology tests (Monks & Pfluger, 2005).

National and international academic competitions present the main challenge for Romanian gifted students of ages 13 - 18. To improve provisions for gifted children and to recognise individual differences and individual needs, a new national curriculum was implemented in 1998. A mentor system was organised to meet the needs of gifted underachievers and of extremely able students. The mentorship programme, financed by parents, was located at special centres for teaching gifted children. Teachers at the centres provide 2 to 4 hours weekly of special classes, which are usually held during weekends. Although some universities provide courses in gifted education, the training of teachers needs to be expanded.

The Ukraine

According to Heller et al. (2000) gifted education has been an issue since the 1930s, but its progress failed because of Communist ideology. Research began again in the 1950s, but government recognition did not occur until the 1980s. Since its independence from the former Soviet Union in 1991, the Ukraine has implemented innovative schools for the gifted (Shaunessy, 2001).

Shaunessy (2001: 40) reports that the Ukraine's Ministry of Education defines 'gifted' as children who 'possess special skills or gifts, rendering potential for high aptitude or success in one or more academic areas or activities, which may bring benefits to society.' Gifted students in the Ukraine are selected by a top-down process. The region's deputies of education confer with school superintendents to recommend students who show promise and interest in medicine. These students are interviewed and take an entrance exam, intelligence test, and academic test (in physics, biology, and chemistry) to measure their psychological readiness (Shaunessy, 2001). Children considered 'talented' are 'those who have already reached a very high level of proficiency in a discipline and the gift has been realised' (Shaunessy, 2001: 40).

Similar to Lithuania, the Ukraine is an economically challenged country. To advance and compete globally, Ukrainian schools provide 'circles,' a system that was established to educate children of all ability levels in all subject areas. However, because the circles did not provide a challenging curriculum to meet the needs of gifted children, the Ministry of Education developed special high schools (*lyceums*) that offered specialised research training in the areas of science, the humanities, general studies, and languages for global competitions (Shaunessy, 2001). The schools range from high schools to medical schools and institutions and are funded by the *Lyceum* Counsel of the Ministry of Education. *Lyceums* offer programmes to both rural and urban gifted pupils and prepare teachers for these special schools.

Like the Ukraine, teacher preparation in gifted education is offered in Hungary and Romania, but not in Poland and Latvia (Monks & Pfluger, 2005). It is not yet offered in Lithuania due to a lack of gifted education specialists at the university level. However, gifted education workshops and seminars do exist for Lithuanian teachers. In 2002, Kaunas Technological University provided the first gifted education

seminars for Lithuanian teachers. Also in 2002, Vilnius Pedagogical University established an Educational Centre for Gifted Children in Lithuania, where Lithuanian teachers, gifted children and their parents are offered courses to support the development of giftedness (Karkockiene, 2008). As of 2004, Vilnius Pedagogical University was the only provider of a special course in gifted education (Karkockiene, 2008). All five of these Eastern European countries want to extend current educational provisions for the gifted, including better recognition of gifted learners as part of school legislation and as an integral part of the basic curriculum for teacher-training (Monks & Pfluger, 2005).

In addition to teacher preparation, Monks and Pfluger (2005) report new provisions for gifted children with grade acceleration and/or enrichment in Hungary, Poland, and Romania. According to Karkockiene (2008), Lithuanian teachers are not systematically prepared to identify and work with gifted children. However, gifted children are recognised at the *gymnasia*, where their academic achievement is higher. Individual mentoring occurs in Poland and various levels of education are encouraged in Romania; however, mentoring occurs at the secondary level in Hungary and is non-existent in Latvia. In Lithuania, it is the responsibility of the parents to help their gifted child in this endeavour. Summer camps are instituted in all countries, including Lithuania. In some Lithuanian schools, there are both summer and winter camps for gifted children.

Psychological counselling is available in Poland and Hungary, but not in Latvia and Romania. Similar to the Soviet era, psychological counselling is not common practice in Lithuania. Karkockiene (2008) states although most parents do not have enough knowledge about their gifted child, they do not seek professional consultations. Furthermore, there are very few psychological service centres in the cities, e.g., Vilnius, Kaunas, Klaipeda, Siauliai, Panevezys, etc.; and, none of the centres specialise in gifted children.

Extra-curricula activities are offered for gifted pupils at all levels in schools of Hungary, Poland, Latvia, and Romania for gifted students. Although there are special programmes for gifted children at the Education Centre for Gifted Youth in Lithuania, they do not exist in regular schools. Special schools for the acceleration of gifted

students exist in Hungary, Latvia, and Romania; however, no such schools exist in Romania. In Lithuania, highly gifted pupils may attend *gymnasiums*.

Hungary, Latvia and Romania celebrate gifted students' completed projects at festivals; however, no such recognition is provided in Poland. Even though schools throughout Lithuania celebrate student work at festivals, there are none that specialise in promoting the work of the gifted. Gifted students have opportunities to showcase their talents in the arts (e.g., dance, etc.) in Hungary, Poland, and Romania, but Latvia has no such cultural recognition. In Lithuania, opportunities are created by enterprising teachers and school administrators (Karkockiene, 2008). In all four countries and Lithuania, gifted children are involved in competitions outside the school, e.g., Olympiads. Students have the opportunity to become involved in mathematic, physics, and other competitions, although the student-involvement depends largely upon the schools and the administration. In addition to the *gymnasia* and private schools, The Educational Centre for Gifted Children in Lithuania also involves gifted students in competitions (Karkockiene, 2008).

How well the identification of and educational systems for gifted children work for the countries of Hungary, Latvia, Poland, Romania, the Ukraine, and Lithuania remain to be seen. There are a number of general issues about gifted education which apply in the Lithuanian context. First, the recognition or rejection of a model of giftedness by an education system impacts the selection of gifted pupils and, therefore, determines the psychosocial development of certain individuals (Narkeviciene & Siauciukeniene, 1999). The child identified as gifted will be dependent upon the choice, or lack of choice, of the giftedness model imposed. Once gifted pupils have been identified, more adequate provisions can be and should be made for them, both in and out of the classroom. Adequate teacher education and provision can occur in a number of ways: differentiated activities (i.e., ability groupings) within the classroom or school, extra-curricular activities, enrichment, or extension. It is important that schools devise a policy to ensure provision of equal access for gifted pupils (George, 1997; and Dean, 2001). Finally, family support is important to help promising gifted students to achieve their potential (Freeman, 1998).

For Lithuania to thrive in a technological and global society, gifted education can no longer focus solely on a few individuals of high ability; rather, the country must develop the potential abilities of as many gifted children as possible. The researcher introduced the Renzulli Three-Ring Conception of Giftedness Model (1977) to identify gifted children, and the Renzulli Enrichment Triad (1977) and Schoolwide Enrichment Models (Renzulli & Reis, 1997) during the professional development programme, to best embrace Lithuania's past and present gifted educational practices and address a growing awareness in Lithuanian teachers that giftedness can manifest itself in many ways. A description of this teacher professional development programmes and its evaluation is presented next in Chapter 4.

Chapter 4

First Study:

Change in Perceptions of Giftedness in Lithuanian Teachers

4.1 Introduction

In 2003, Kaunas Technological University invited the researcher to provide professional development in gifted education to assist Lithuania in the development of a national identification process for gifted children. This fourth chapter presents the methodology, findings and analysis of research conducted to characterise the change in Lithuanian teachers' perceptions of giftedness following the professional development programme. The aims of this research were first to describe the changes in the participating teachers' perceptions of giftedness, and second to learn what Lithuanian teachers perceived as important in the process of gifted identification from their perspective.

4.2 Professional Development Programme Organisation

In 2002, Kaunas Technological University and Kaunas Teachers Centre [Appendix A] organised the first professional development programme for gifted education in Lithuania. Six lectures entitled 'Problems of Gifted Children's Development and Implementation of Changes of Content of Education and Modernization' (*Gabiu Vaiku Ugdymo Igyvendinant Mokymo Turninio Kaita ir Modernisation*) were planned for Kaunas regional teachers during 2002-2003. The first three lectures were presented on 5, 11, and 20 November 2002. Professor D. H. Rost of Germany presented a lecture about the recognition and selection of gifted children, which also included a discussion of the qualities of gifted children and of suggested pedagogical behaviour for teachers. The second lecture, presented by Associate Professor B. Narkeviciene of Kaunas Technological University, addressed the main goals for the education of gifted children, based on their development. This lecture explained problems gifted children have in school, and recognised the importance of the compatibility of goals among schools and teachers. The third lecture was presented by teachers from the internationally-recognised J. Jablonskis *Gymnasium* in Lithuania, who described effective methodologies for working with gifted children. The teachers showed slides and videos of their work with gifted pupils in Grades 5 –

12 and explained how the school began its Baccalaureate programme. Although the school served bright children, teachers were unclear as to who was gifted (Interview. Teacher D. 26 January 2003). Whilst the Lithuanian teachers listened to the new information about gifted children, they had no opportunity to actively reflect on their own teaching practices or to try the theory in their classrooms (Interview. Teacher D. 26 January 2003). It was observed that teachers of language arts, science, and other academic areas attended the seminars, but that teachers who spoke Russian, Lithuanian, and/or English sat in separate groups (Interview. Teacher D. 26 January 2003).

In 2003, the Kaunas Teachers Centre Resolution Report highlighted the first three seminar topics of the professional development programme at Kaunas Technological University and, importantly, recognised the need for creating a unified definition of giftedness and a gifted identification procedure. The Resolution Report stressed the need to address three main concepts in the development of gifted educational in Lithuania (Dainutiene, 2003):

1. Creating strategies for how to develop the special needs of gifted children;
2. Founding an organisation concerned with the development of gifted children that would help them to achieve their potential abilities, and that also would provide support to gifted children and their teachers, and
3. Creating an official document of special achievement to recognise and evaluate the achievement of gifted children that would have impact for entrance to a university.

The Kaunas Teachers Centre Resolution Report affirmed that:

- Teachers expressed the necessity for a gifted identification system and curriculum;
- Teachers understood gifted children learn differently and that teachers must individualise the work, but they did not understand how to evaluate pupils' growth and creativity;
- There was no national document to describe gifted children;
- It was important to give gifted children an opportunity for independent work;
- Teachers had little, if any, support to work with the gifted, and a higher level of work was not defined in their existing curriculum;
- Teachers and students had to pay for competitions and contests;
- Gifted student achievement did not count toward university credit;
- Praise was the only feedback given to teachers who worked with the gifted;
- A gifted child's creativity was not reinforced in schools; thus, gifted children lost motivation and interest in doing their school work, and

- Although there are concepts of giftedness in national policies, there were no clearly formed policies for gifted education.

In 2003, upon invitation by Kaunas Technological University, the researcher delivered the fourth seminar in the lecture series to address ‘contents of development’ to help teachers develop a process for the identification of gifted children in Lithuania [Appendix B]. The researcher was invited because she had worked for several years as a teacher-trainer for the American Professional Partnership for Lithuanian Education (APPLE), and was thus sensitive to the professional development needs of Lithuanian classroom teachers.

Official approval for the professional development programme was received from the Ministry of Education in Kaunas so that teachers in the Kaunas region could attend. The hope was expressed that these teachers would become involved in the development of an identification procedure for their schools. Antanas Bagdonas, Director of the Kaunas Department of Education, believed ‘gifted children are the future of Lithuania,’ and supported the professional development programme to ‘manage progress’ that would have ‘social-historical impact’ for the country (Personal Conversation. Bagdonas. 8 February 2003). By providing an opportunity for Lithuanian teachers to become involved in the development of a gifted identification process, it was hoped they would become empowered as change agents during the country’s educational reform and, more specifically, in the implementation of the process at their schools. Their commitment was necessary to sustain the initiative of identifying gifted children.

At the researcher’s request, Kaunas Technological University invited Kaunas regional schools to send small groups of three or four teachers to participate in the professional development training. The purpose of this request was to ensure greater success of implementing the identification process at schools where teachers had support from each other and did not have to work to implement the process in isolation. Administrative release time was granted to teachers who attended the professional development programme during the regular school day.

The researcher designed the seminar which was entitled ‘Developing the Gifts and Talents of All Students with Implications for Identifying Gifted Secondary Pupils in Lithuanian Classrooms Today’ [Appendix C]. The intent of the seminar was to provide enrichment for *all* children in Lithuanian classrooms, including the gifted. This fourth seminar presented Lithuanian teachers with the prospect of combining theory and practice to assist them with the development of a gifted identification process for Lithuanian schools. The hope was to build a culturally responsive practice that would help them to work with a diverse population of students in the classroom.

In this fourth seminar, ninety-three Lithuanian teachers from thirty-three Kaunas regional schools attended three days of lectures and workshops at Kaunas Technological University. Three of the schools were *gymnasia*; the remainder were lower secondary schools (inclusive of basic schools). The presentations occurred on 29 January, 30 January, and 6 February 2003. As per the request of Kaunas Technological University, the seminar focused on Renzulli’s Three-Ring Conception of Giftedness Model (1977). To offer a broader perspective on North American thinking about giftedness, the models of Gagné (1985) and Tannenbaum (1986) were included. Additionally, Gardner’s Multiple Intelligences Model (1983) was also presented. The Enrichment Triad Model (Renzulli, 1977) and the Schoolwide Enrichment Models (Renzulli & Reis, 1997) were highlighted as the most reasonable way for Lithuanian teachers to make provisions for gifted children in the classroom. Whilst the researcher spoke in English, an interpreter translated the lectures into Lithuanian. In contrast to the previous professional development lectures, overhead transparencies, teacher handouts, and copies of materials from the lecture translated into Lithuanian in advance were made available for the participants. Morning lectures (10:00 AM - 12:00 PM) were followed by afternoon workshops (1:00 PM - 3:00 PM) during which Lithuanian teachers worked in self-selected, cooperative groups to create a definition of giftedness and to develop the process for identifying gifted pupils. Because the professional development programme was delivered over a two-week period, Lithuanian teachers had time to collaborate with colleagues back at their school and then reflect upon their new learning and teaching practices. This time for reflection allowed Lithuanian teachers to develop insight into giftedness and encouraged them to raise questions about gifted education during their decision-making process.

At the conclusion of the professional development programme, Kaunas Technological University awarded professional teaching credits to the participants for their attendance. In addition, the researcher presented certifications of appreciation to the interpreter, to the translator, and to the associate professor for each person's contribution to the programme [Appendix D].

The researcher's seminar embraced the following goals and objectives:

1. Goal: To introduce a broad definition of giftedness based on the Three-Ring Conception of Giftedness Model by Joseph Renzulli (1977) in addition to gifted identification models by Abraham Tannenbaum and by François Gagné and an intelligence model by Howard Gardner.

Objective: Participants will develop a definition of giftedness by integrating their personal educational experiences with concepts from these models.

2. Goal: To examine the taxonomy of behavioural manifestations of giftedness based upon Renzulli's Three-Ring Conception of Giftedness: above average ability, task commitment, and creativity.

Objective: Participants will brainstorm and develop a list of characteristics that indicate giftedness in Lithuanian classrooms.

3. Goal: To match teaching and learning styles to improve learning for all pupils in their classrooms based upon Gardner's approach to multiple intelligences.

Objective: Participants will take a multiple intelligence survey test to analyse their own learning strengths and weaknesses with implications for their teaching to students' learning styles.

4. Goal: To understand how to identify pupils for participation in Renzulli and Reis's Schoolwide Enrichment Model (1997).

Objective: Participants will discuss Renzulli and Reis's Schoolwide Enrichment Model: Interest-A-Lyzers and Nomination Forms.

Objective: Participants will understand important educational implications of Enrichment Triad Activities: Type I (general exploratory activities), Type II (group training activities), and Type III (individual and small group investigations of real problems) to challenge learning for all pupils.

5. Goal: To create a screening committee that was inclusive of administrators and teachers in Kaunas regional schools. This team will develop identification and evaluation tools for gifted pupils in Lithuania.

Objective: Workshop participants will be invited to join a screening committee, and based upon their experience and information gained from this workshop, will develop identification and evaluation tools for gifted pupils in Lithuania.

Objective: The identification process Lithuanian teachers develop to identify gifted pupils will be implemented in their respective schools by June 2003.

Lithuanian teachers developed a list of characteristics to define 'giftedness' [Table 4.10] [Appendix E]. Based upon Renzulli's Three-Ring Conception of Giftedness Model (1977) and the Enrichment Triad Model (Renzulli, 1977), teachers modified their school's gifted student nomination forms to ensure cultural appropriateness for their new identification process. The result was to create four new forms:

1. Parent Nomination form;
2. Teacher Nomination form;
3. Peer Nomination form, and
4. Self (Pupil) Nomination form.

At the conclusion of the professional development programme, each group presented its work to the larger class for discussion and revision. A final definition of giftedness was agreed upon. All of the completed documents, i.e., the four nomination forms, were submitted to Associate Professor Narkeviciene of Kaunas Technological University to be typed and faxed to all schools in the Kaunas region [Appendix F]. A final written report was presented by the researcher at a meeting with the Director in the Ministry of Education at Kaunas [Appendix G].

The proposed fifth and sixth seminars in the series were entitled 'How teachers could reinforce behaviours of gifted children to obtain good results' and, 'How to evaluate work of gifted and highly gifted pupils with implications for understanding the impact of teaching.' The lectures were scheduled to be delivered later in 2003 by teachers from regional schools.

4.3 Professional Development Study Methodology

The important point is not so much whether there is a hypothesis, but whether you have carefully thought about what is, and what is not worth investigating and how the investigation will be conducted.

(Bell, 1993: 19)

Verma and Mallick (1999) describe three main approaches to educational research: historical, descriptive, and experimental. The descriptive approach appeared to be most appropriate to provide a representation of the educational situation in Lithuania, a description which reflected change in Lithuanian teachers' perception of giftedness and the development of an identification process of gifted pupils. Focusing on the current educational reform did not occur in isolation; rather, historical data [Chapter 2] were integrated to achieve a valid perspective. The research implicitly aimed to support Lithuanian teachers in the development of a culturally suitable gifted identification process in Lithuania. It was expected that the teachers who participated in the study would be called upon to use and share their knowledge and experience with colleagues in the identification and education of gifted pupils. As argued in Chapter 2, Lithuania wanted a way to identify gifted children and to involve Lithuanian teachers in this process (Personal Conversation. Narkeviciene, 14 August 2002).

Criteria of giftedness are determined by the prevailing culture. Each culture determines within its own value system the particular behaviours that are identified as those which will manifest into giftedness (Harslett, 1996). This view is consistent with those of others, whose research supports the idea that identification must examine unique cultural views, characteristics, and experiences (Bernal, 1980; and Braggett, 1985). Because context-bound conclusions potentially can point the way to new policies and educational decisions, qualitative methodology was considered the best way to gather data to understand how Lithuanian teachers perceived giftedness.

A traditional scientific method of research that involved altering experimental variables through manipulation was rejected. A traditional scientific method did not offer the extent needed either to understand educational reform in Lithuania or to explain both Lithuanian teachers' change in perceptions of giftedness and a school's implementation of a gifted identification process. A close connection exists between qualitative research and teaching, one that is often missed by scientific inquiries (Burns, 1990). Qualitative researchers gain an inside view of the field from their close access to participants and activities within the researched setting. Here the familiarity of the researcher with the Lithuanian educational system and culture brought valuable insights to understanding the relationships, causes and effects, and

dynamics of this study. That said, such closeness was not without problems; researcher-bias is discussed below.

A potential strength of qualitative investigation lies in the examination of an educational experience using appropriate instrumentation designed before and during the research for both observing and for recording events. It was reasonable to plan the data collection in advance because the researcher wanted to focus on participants' perceptions of change and, later, the implementation of a gifted identification process at a case study school. Both surveys and interviews were used to gather data for this study. As suggested by Miles and Huberman (1994), the use of such prior instruments is an acceptable way to build theory, improve explanations or prediction, and make recommendations about practice.

Mind Mapping, a graphic organiser which is used widely in psychology, business, and education, was initially employed to illustrate relationships between key concepts from pre- and post-surveys (Buzan & Buzan, 1993; Buzan, 2002). As a process to illustrate underlying conceptual patterns, *Mind Mapping* served to generate, envision, structure, and classify concepts as a visual aid for studying and organising the data (Buzan, 1977). It offered a systematic structure for analysing information in a group composition for a given set of circumstances (Payne & Starren, 2005; Beyersbach & Smith, 1990). LeCompte and Goetz (1983, as cited in Miles & Huberman, 1994) recommend researchers consider what effects are similar and what are different. Concepts with similarities and differences become subsequent details of the essential main ideas, which lend themselves to the *Mind Mapping* format. Because *Mind Mapping* does not automatically configure clustering (clustering was done by the researcher), this method was open to interpretation. It was important, therefore, that the analysis be confirmed with an additional methodology.

After a preliminary examination of data using *Mind Mapping*, the qualitative analysis software, *NVivo*, was employed to sort, analyse, and code data. *NVivo* technology is designed for qualitative research that clusters information. *NVivo* codes textual data as 'nodes' and distinguishes between 'free' and 'tree' nodes, which have similar properties, but are arranged in a hierarchy ('tree'). Nodes can be created, deleted, merged, and moved to change the text to which they refer. They can be both

displayed and searched. The researcher can ask questions of the data to build and test theories. Although *NVivo* results also are open to interpretation, the researcher was explicit about her initial assumptions and the way these were monitored and challenged throughout the study.

Because of the limitations of a qualitative study, it is important to consider issues of validity, and to examine strategies that lead to the successful development of maximum validity (Kirk & Miller, 1986; Lincoln & Guba, 1985; and Miles & Huberman, 1994). Qualitative study can be subjective in nature and can originate in single context; oftentimes, it is difficult to apply conventional standards of reliability and validity (Burns, 1990). Instrument validity and reliability are skills attendant upon the researcher's ability to observe, interview, and record data during the investigation of a study. These examples build a strong case for interpretive validity (Becker, 1970, as cited in Bogdan & Taylor, 1975; and Sieber, 1976). Here, the researcher can be seen as a good qualitative 'researcher-as-instrument' because of the researcher's familiarity with the Lithuanian education system and, in particular, with the setting for the case study school.

Although inevitable, researcher-bias as described by Greene (1994: 539, as cited in Denzin & Lincoln, 2003), also could be seen in a positive light: the 'individual qualities of the researcher are valued as indispensable to the meaning of construction.' Nevertheless, Holsti (1968, as cited in Lindzey & Aronson, 1969; 1969) suggests that researchers should not assume that their ideas are self-invented, as evidenced by a long tradition of content-analysis techniques addressing issues of coding, unitising, and clustering qualitative data. The researcher represents a particular perspective which allows the reader to evaluate the findings with the lens of explicit assumptions espoused by the researcher. In this particular case, the researcher worked closely with an interpreter, one who participated in the professional development programme, and who was also a member of the case study school screening committee. Presentation and the interpretation of findings could be seen as the product of collaborative work and two different perspectives. It is difficult to judge to what extent this collaboration alleviated researcher bias or how much of unconscious biases of the interpreter have influenced final results.

4.4 Professional Development Study Research Design

This first study focused on the first research question:

How have Lithuanian teachers' perceptions of giftedness changed following a professional development programme in gifted education at Kaunas Technological University?

4.4.1 Pre- and Post-Surveys

Surveys are useful tools to determine and measure the status of a defined population; however, they are only as effective as the sample or question posed. The subjects may not always offer responses that are truthful; people may try to make themselves look better than they are in actuality. Moreover, survey questions are open to interpretation. In this study Lithuanian teachers may have communicated an understanding of giftedness solely based upon their attendance at one or more of the previous three seminars offered by Kaunas Technological University. It can be inferred that because the first two lectures were theoretical, and did not engage in discussing classroom applications, Lithuanian teachers may not have made the connections for how to teach gifted children in school.

The researcher used pre- and post-surveys to determine whether or not change had occurred in Lithuanian teachers' perceptions of giftedness. To focus participants' attention on key elements of the study that would reflect teachers' concept of giftedness before and after the professional development programme [Appendix H], the surveys were intentionally designed to be short. A combination of both open and close-ended questions was used to survey 93 participants. In the interests of getting honest responses, all of the surveys were completed anonymously. The limitation of doing this was that there was no way of seeing if teachers from the gymnasia responded differently from teachers from the general lower secondary schools.

The pre-survey asked about familiarity (previous knowledge) of giftedness from lectures or readings. The questions in both asked for the characteristics of gifted pupils and for the methods used to identify them. Both surveys gathered information on the requirements needed to teach gifted children and identified which of these requirements were satisfied by teachers and which identified additional assistance

required to teach gifted pupils in Lithuanian schools. The post-survey gauged the change in the level of understanding of giftedness within the Lithuanian culture after the professional development programme.

The pre-survey contained eight questions and the post-survey contained nine. Four questions were close-ended and required a definitive answer; five questions were open-ended and asked for an explanation or opinion. Questions number 1, 2, 3, and 4 examined teacher responses of baseline knowledge in gifted education. Questions 5, 6, 7, and 8 required teacher responses related to the school environment and policies for gifted children. Question 7 required teachers to rate their response on a scale of 0 - 5 (low to high). Question 9 required Lithuanian teachers to personally reflect upon their growth and understanding of giftedness following the professional development programme. Because the researcher's intent was to explore both open- and close-ended responses of Lithuanian teachers, the use of a *Likert Scale*, which reports only the level of agreement or disagreement, was not considered to be the most appropriate psychometric tool for this study.

The survey questions were discussed, modified, and approved by the researcher's supervisors from both Kaunas Technological and Oxford Brookes University. Collaboration between the researcher and translator helped to assure accuracy of the translations. All translated copies were pre-submitted to Kaunas Technological University for final approval. The survey questions read:

- Question 1: Have you ever heard of the term 'gifted,' or have you attended lectures about 'giftedness'? (Pre-survey only)
- Question 2: What is 'giftedness'?
- Question 3: Characterise one of your gifted pupils.
- Question 4: What are some methods to identify gifted pupils?
- Question 5: What is the percentage of gifted pupils in your school?
- Question 6: What specific requirements might gifted children have?
- Question 7: Do teachers satisfy these requirements? Rate on a scale of 0 – 5, in which 0 is low and 5 is high.
- Question 8: What assistance is needed in Lithuanian schools for the gifted?
- Question 9: Has your understanding of the concept of giftedness changed? (Post-survey only)

All survey results were translated by a KTU professor recommended by the University because of her familiarity with educational terminology and fluency in

English (Vaitiekaitiene, 2003). Results were emailed to the researcher in the United States for analysis [Appendix I]. The Lithuanian educator's translations of all surveys and questionnaires served to support an unbiased interpretation of the findings.

The responses to all questions, with the exceptions of Q1 that asked for a 'yes' or 'no,' are presented below in histograms. Q 5 and Q9 responses were based upon a 5-point rating scale. The responses to six questions (Q2, Q3, Q4, Q6, Q7, and Q8) are presented in *Mind Mapping* format [Appendix J]. *NVivo* was utilised to classify, sort, and arrange the data to explore trends and build and test theories gathered from *Mind Mapping*. Thus, the researcher was able to compare *Mind Map* findings with further *NVivo* analysis to verify interpretations of results in this study. Survey Questions Q2-Q9 were analysed using both *Mind Mapping* and then *NVivo* to interpret data. *NVivo* presented a more concise analysis of the data; thus, only *NVivo* results are presented in the text. *NVivo* coding is located in the appendix [Appendix K].

4.5 Professional Development Study Findings

4.5.1 Analysis Employing *NVivo*

There are many ways to interpret the data, and as coding is a subjective process, the coding is not exhaustive. The researcher's coding strategy attempted to provide indicators within various nodes rather than attempting to code every line of text to every node possible. The results also were coded for context so occasionally content than might seem necessary might have been caught; this strategy saved the researcher time from searching for context in the final analysis reports.

A general analysis of the data is then followed by a specific breakdown of the findings. First, the researcher analysed the data for an overall frequency count of participant responses to both pre- and post-survey questions [Tables 4.1 - 4.9]. Next, the researcher examined the data more closely by analysing results for each pre- and post-survey question [Table 4.12 and Figures Q1 - Q14].

Tables 4.1 - 4.9 indicate the number of surveys with at least one comment coded to each node. The frequency counts were sorted in descending order on a spreadsheet using *Microsoft Excel*. Coding reports were retrieved as nine-node coding reports for all documents. The complete list is available upon request. As mentioned previously,

the content in the coding report sorts according to the titles of the documents, if text has been coded from those documents. The titles sort according to 76 pre-surveys (P) and 43 post-surveys (Post).

The coding report indicates the number of references coded and noted as the percent covered. For example, three paragraphs can be selected at one time and that is one reference, or three sections can be selected within a single paragraph (three different selections), which are counted as three references. Percent of coverage refers to the percent from the entire document. In the example below, the source P-31 has two references coded representing 8.32% coverage of the source. Each reference also lists the percent coverage so Reference 1 represents 3.33% of the total source and Reference 2 represents 4.99% coverage. Both references add to 8.32% coverage. These statistics are not particularly useful other than for ‘proportionality’ in that either a lot was said or a little was said. The main statistic that has value is number of sources coded to each node (frequency counts in *Excel*) as will be explained. The *Excel* spreadsheet provides frequency counts for the number of documents out of 119 total documents that are coded in each category. The frequency counts were created with *NVivo* to interpret conclusions and examples.

Example 1:

Spreadsheets were helpful to compile frequency counts for closed questions in categories such as ‘Q1 - Read or listened to lectures’ or ‘Q7 - Teachers meeting needs of Gifted Children (GC) at School/Rank.’ To provide overall direction for the data, frequency counts added to 119 in both tables [Table 4.1 and 4.2]; and, percentages added to 100% in Q1, but only to 99% in Q7 because of rounding in *Excel*.

Table 4.1 NVivo Q1 Coding Reports: Teachers’ Experience with Gifted Education

CODING REPORTS	NO OF DOCS	% OF 119 DOCS
	(Total 119)	
Q1-Read or listened to lectures		
Yes-Have read or listened to lectures	36	30%
No-Have not read or listened to lectures	40	34%
Not asked if read or listened to lectures	43	36%

Example 2:

Some nodes have the same text coded in multiple categories. For example, the response ‘Logical,’ ‘Linguistic,’ ‘Musical,’ ‘Artistic,’ ‘Sportive,’ ‘Interpersonal,’ ‘Extra Personal,’ ‘Natural Scientific’ from the pre-survey P-54 has been coded to the following categories of Teaching Requirements for Gifted Children (GC):

- Q6 – Teaching Requirements for GC/Characteristics of GC;
- Q6 – Teaching Requirements for GC/Characteristics of GC/Talented;
- Q6 – Teaching Requirements for GC/Characteristics of GC/Teacher Planning and Preparation;
- Q6 – Teaching Requirements for GC/Characteristics of GC/Teaching Methods;
- Q6 – Teaching Requirements for GC/Characteristics of GC/Teaching Methods/Complex Assignments;
- Q6 – Teaching Requirements for GC/Characteristics of GC/Teaching Methods/Differentiated Assignments;
- Q6 – Teaching Requirements for GC/Characteristics of GC/Teaching Methods/Multiple Resources, and
- Q6 – Teaching Requirements for GC/Characteristics of GC/Teaching Methods/Novelty.

The exact meaning of the respondent in this type of response is complex and perhaps should not be segmented. The researcher found it more helpful to code the entire response to multiple categories and then put the response into context when analysing the categories. Other examples of multiple coding occur in nodes with titles such as ‘Differentiated,’ ‘Complex,’ ‘Creative,’ or ‘Novelty’ and several other categories if the responses were multi-dimensional.

Table 4.2 NVivo Q4 Coding Reports: Methods Used to Identify GC

CODING REPORTS	NO OF DOCS (Total 119)	% OF 119 DOCS
Q4-Methods Used to Identify GC		
Assignments & Tasks	41	34%
<i>Creative</i>	19	16%
<i>Logical</i>	7	6%
<i>Individual</i>	7	6%
<i>Differentiated - nonstandard - special</i>	6	5%
<i>Projects</i>	4	3%
<i>Additional</i>	4	3%
<i>Type not specified</i>	3	3%
<i>Group & team work</i>	2	2%
Total	52	

Example 3:

Several categories indicate the total number of documents coded to that category with counts for the subcategories contained within. For example, the node ‘Q4-Methods used to identify GC’ indicates ‘Assignments and Tasks’ were identified by 41/119 or 34% of the respondents. This category was further subcategorized into eight areas to help analyses within that category [Table 4.3]. Multiple coding occurred within the subcategories as described in Example 2.

The subcategories add to 52 rather than 41 due to this multiple coding. Another example is shown below.

Example 4:

Some frequency counts add to more than the total number of documents (119) within the categories because of multiple answers within a response and/or multiple coding of the same response. Many responses, for example, referred to ‘Quick Orientation,’ ‘Quick Perception,’ ‘Quick Mastering and Reproduction,’ ‘Ability to grasp new ideas quickly,’ etc. These were coded to appropriate categories and also coded to a category, titled ‘Quick.’

Table 4.3 NVivo Coding Reports

CODING REPORTS	NO OF DOCS	% OF 119 DOCS
	(Total 119)	
Achievement and Mastery	48	40%
Critical thinking	34	29%
Natural abilities	31	26%
Creativity	28	24%
Intellect	28	24%
Quick	19	16%
Adaptability	17	14%
Self-motivated	17	14%
Advanced ideas	15	13%
Curiosity	13	11%
Other	12	10%
Self-actualization	7	6%
Leadership	5	4%
Perseverance and persistence	5	4%
Total	329	

Example 5:

Frequency counts were helpful in providing direction and understanding. It was interesting to look at nodes that had 50% or more responses in any single category.

There were only a few:

Table 4.4 *NVivo* Coding Reports: Q4 – Q7

CODING REPORTS	NO OF DOCS (119)	% OF 119 DOCS
Q4-Methods used to identify GC		
Testing and evaluation	72	61%
Q5-Percent of GC at school		
0-10% GC at school	75	63%
Q6-Teaching requirements for GC		
Teaching methods	69	58%
GC student characteristics	65	55%
Q7-Teachers meeting needs of GC at school		
Rank 2-3	62	52%

All remaining nodes have fewer than 50% responses.

Example 6:

Nodes for Q7-Q9 provide understanding as to what Lithuanian teachers do versus what they would like to do.

Q7 data reports on Lithuanian teachers meeting the needs of gifted children in school. On a scale of 1 to 5 (5-highest), only 12% of the teachers gave ranks of 4 or 5 for meeting needs of gifted children in school, and over half (52%) gave ranks of 2 or 3 (average or below average). Nearly 1/5 (18%) indicated ranks of 0 or 1 or said teachers are not meeting needs at all. Unranked responses cannot be counted; 14% just say 'Yes' to meeting needs of gifted children but did not give a rank; 3% had no response.

Table 4.5 *NVivo* Q7 Coding Reports: Teachers Meeting GC Needs at School

CODING REPORTS	NO OF DOCS (119)	% OF 119 DOCS
Q7-Teachers Meeting GC Needs at School		
Rank 0-1 or no	22	18%
Rank 2-3	62	52%
Rank 4-5	14	12%
Yes-rank not given	17	14%
NR	4	3%

Here, categories are mutually exclusive in that only one survey response can be applied to each category; multiple coding cannot occur. In these nodes, the frequency counts within categories or subcategories may or may not add to 119 depending on whether all interviewees responded to the question. Therefore, the researcher coded to 'NR' (no response) or 'NA' (not asked) in several instances to help analyze these discrepancies more effectively. Nearly half (45%) of the teachers achieved 'Meeting needs of the gifted children through assignments.' 'Types of Assignments' are addressed in more detail in Q4- 'Methods.'

Table 4.6 NVivo Q7 Coding Reports: How Teachers Meeting GC Needs at School

CODING REPORTS	NO OF DOCS (119)	% OF 119 DOCS
Q7-Teachers meeting needs of GC at school		
How achieved		
Individualized differentiated additional assignments	53	45%
Other teaching methods	19	16%
Teacher planning and preparation	17	14%
Extracurricular Contests Olympiads Clubs	15	13%
Materials and resources	3	3%

Recommended changes are captured in few (12% or less) of the responses to this question (Q7).

Table 4.7 NVivo Q7 Coding Reports: Changes Needed for Teachers Meeting Needs of GC at School

CODING REPORTS	NO OF DOCS (119)	% OF 119 DOCS
Q7-Teachers meeting needs of GC at school		
Changes needed		
Systemic	14	12%
Diverse student learning levels	13	11%
Professional development for teachers	8	7%
Syllabi and curriculum	8	7%
Time	5	4%
Financial	4	3%
Reduced class size	2	2%
Parents	1	1%
Restrictions on teachers	1	1%

Q8 data reports what Lithuanian teachers needed to identify gifted children and then create a syllabus that would work for gifted children. Direct responses to this question (Q8) indicate a variety of opinions, with none capturing a majority of the

responses. The top categories are ‘Syllabi,’ ‘Financial,’ ‘Professional Development,’ ‘Educational Resources and Materials,’ and ‘Systemic Changes.’

Table 4.8 NVivo Q8 Coding Reports: What is Needed for Teachers to Identify and Make Syllabi Work for GC

CODING REPORTS	NO OF DOCS (119)	% OF 119 DOCS
Q8-Needed to identify & make syllabi work for GC		
Syllabi - specialized for GC	34	29%
Financial	30	25%
Professional development	30	25%
Educational resources & materials	29	24%
Systemic	26	22%
Methodology	22	18%
Testing & questionnaires	18	15%
Other	17	14%
Experience of others	15	13%
Facilities	13	11%
Class structure	7	6%
Syllabi - specialized for GC	34	29%
Financial	30	25%

Q9 data reports on the changes in Lithuanian teachers’ understanding of giftedness after their attendance at lectures and seminars. The majority of teachers (51%) had ‘Very Much’ or ‘Much’ understanding after the lecture and seminars. Many teachers (40%) achieved partial understanding, and only 7% of the teachers answered ‘No’ to this question of changes in understanding after the professional development programme. One teacher had no response.

Table 4.9 NVivo Q9 Coding Reports: Changes in Understanding after Professional Development in Gifted Education

CODING REPORTS	NO OF DOCS (119)	% OF 119 DOCS
Q9-Changes in Understanding after Professional Development in Gifted Education		
1. No	3	7%
2. Partially	17	40%
3. Much	19	44%
4. Very much	3	7%
NR	1	2%

The data is rich, and in addition to reporting the results of the research, it is necessary to record the outcomes of the professional development programme itself.

4.6 Outcomes of the Professional Development Programme

Based upon their professional development work in January and February 2003, Lithuanian teachers of Kaunas region created the following definition of giftedness:

A gifted child or teenager has higher than average intellectual (general and/or special) abilities, is creative, and differs from his peers (having the same school environment) in performing tasks in an original and productive way.

The definition shows that for these Lithuanian teachers ‘giftedness’ was not based solely upon intelligence or test scores. Their definition was closely aligned with the Renzulli Three-Ring Conception of Giftedness Model (1977) to include ‘creativity’ and excelling among peers in an ‘original’ and ‘productive way.’

Similar to Tannenbaum’s Model (1986) and the Marland Report (1971), this Lithuanian definition embraced the idea that giftedness might occur at different times during an individual’s life, i.e., ‘child and teenager.’ Thus, these Lithuanian teachers created a broader definition to identify gifted pupils at their schools. This definition was much different from the previous Soviet-influenced election of the top 7% of the aristocracy (Shaunessy, 2001). It was not unexpected, however, that the Lithuanian teachers who attended the professional development programme in gifted education would integrate a North American educational philosophy into their definition of a gifted child since that was at the core of the seminars.

The teachers also created a list of 20 characteristics that exemplified gifted children [Table 4.10].

Table 4.10 Lithuanian Teachers’ List of Characteristics of Gifted Children

1. Logical thinking
2. Quick orientation
3. Good memory
4. Critical thinking
5. Linguistic abilities
6. Creative intellect
7. Special inventiveness

8. High curiosity
9. Self-independence
10. High motivation
11. Social maturity
12. Originality
13. Applies subject concepts
14. Leadership
15. Diligent, task-directed
16. Analytical thinking
17. Attentiveness
18. Humour
19. Verbal abilities
20. Non-verbal abilities

In their inclusion of ‘creativity’ and ‘leadership,’ the Lithuanian teachers’ list reflects the influence of North American models of giftedness, e.g., Renzulli’s, Tannenbaum’s, and Gagné’s. By including characteristics of ‘logical’ and ‘linguistic,’ the teachers’ thinking also incorporates aspects of Gardner’s Model of Multiple Intelligences (1983). The predominant characteristics that appear on both the pre- and post-survey are also included in the list, qualities such as ‘Quick Orientation,’ ‘Good Memory,’ ‘Diligent,’ and ‘Analytical Thinker.’ ‘Humour’ could have resulted from Renzulli and Reis’s Schoolwide Enrichment Model (1997) that proposed learning should be fun, and because many gifted children see adults as peers, they share an adult-like sense of humour.

Winner (1996) stresses the label ‘gifted’ is attributed to children with academic gifts, i.e., language and mathematics, two areas highly valued in schools. The assumption that children are gifted across many domains but select only one to focus on propagates the myth that gifted children have a general intellectual ability or ‘global giftedness’ (Winner, 1996: 7). This assumption was supported by the list created by Lithuanian teachers. The list validated the teachers’ belief that gifted children did not have to be gifted in all areas or ‘across the board;’ rather, a child could be identified as gifted in one or more areas. It was unknown, however, if any of the children identified as gifted were dually diagnosed as learning-disabled or as having special needs. Nevertheless, after the professional development programme, these Lithuanian teachers were now able to identify gifted children in many different ways.

The other output of the professional development programme was the redesign of school gifted student nomination forms. To reflect Lithuanian teachers' thinking across different grade levels, four nomination forms were created by Lithuanian teachers. Although the Lithuanian teacher nomination form did not define the concept of giftedness, it questioned why teachers thought some students should be considered gifted, e.g., according to students' projects, suggestions, and achievements. The teachers of the nominees were required to record current evaluation marks of pupils in areas of languages/literature, social science, mathematics, and science. The teachers also ranked students' skills with a high, medium, or low mark in the following area, which appeared in no particular order:

1. Arts and crafts;
2. Science;
3. Creativity;
4. Social Science;
5. Resourcefulness;
6. Music;
7. Artistry;
8. Mathematics;
9. Languages, and
10. Other (including technology).

The form asked teachers to report on groups of subjects that reflected the pupils' talents and on which curriculum areas they thought should be to 'shortened or skipped,' e.g., language, science, mathematics, and/or social science. This form reflected the influence of compacting curriculum from the Renzulli and Reis Schoolwide Enrichment Model (1997). Interestingly, mathematics was the first subject listed on the nomination form, and science was the second, which implied the importance of these two subjects in Lithuanian classrooms.

The second form created by Lithuanian teachers, the parent nomination form, indicated students' talents and abilities be adapted to Lithuanian context and not translated literally. Interestingly, the form required the name of the nominee's foster or biological parent, which reflected a change in the nuclear family concurrent with changes worldwide.

The third nomination form was the self-nomination. In comparison to the previous two nomination forms, this form appeared to be quite thorough. Initially, teachers

wrote one page but later modified it to be more structured to recognise 12 areas of giftedness: general intellectual abilities; mathematics; science; social science; language/literature; reading; arts; music; acting; dancing; resourcefulness; leadership, and other. An open-ended question asked pupils to identify their areas of strength and to provide evidence by describing projects, speaking about books they read, or by sharing ideas they had to prove their exceptionality.

The last form created by Lithuanian teachers was a peer nomination form. This form inquired which classmate a student would choose to help him or her study mathematics, languages, i.e., native Lithuanian, English, Russian, German, and French, reading/literature, social science, and science. The form asked which classmate was thought of as the best in the class for acting, singing, sports, and in playing musical instruments. The form then requested that pupils name the particular instrument and skill areas. The peer nomination form also asked which classmate was quickest to complete any of the tasks.

The concept of 'Quickness' appeared on the pre- and post-survey results, which indicates this characteristic is a quality of giftedness also valued by teachers. Additionally, the peer nomination form asked students which classmate had the best sense of humour, which was the most resourceful in generating creative ideas, and who was the most respected, or reliable, or independent. Arguably, the last three characteristics could describe students who are 'teacher-pleasers' or 'bright learners' as well as 'gifted.'

The last two questions asked which classmate would be chosen as project leaders and, also as the 'best' in the class, without defining what was meant by 'best.' It can be inferred that leadership was considered a characteristic of giftedness because it was included in the original list created by Lithuanian teachers after the professional development programme.

Lithuanian teachers made other modifications and changes on the nomination forms to suit their needs:

- Included the date of nomination;
- Inquired if a student's opinion changed from one year to the next;

- Named all specific sub-areas of science and social studies;
- Replaced the words ‘Acting’ with ‘Artistry,’ ‘Dancing’ with ‘Choreography,’ and ‘Resourcefulness’ with ‘Creativity,’ and
- Requested students evaluate their talents and academic skills using a point system for an average mark.

In sum, the teachers based their nomination forms on the Renzulli Enrichment Triad Model (1977) to identify gifted children, and on the Renzulli and Reis Schoolwide Enrichment Model (1997) to include input from teachers, parents, and peers, and from the pupils themselves. Although teacher selection and identification of gifted pupils was common practice during both the Russian and Soviet periods, it can be inferred that Lithuanian teachers found the teacher nomination form a useful tool in the identification process.

Similar to studies by Hany (1993, as cited in Heller et al., 2000) and Borland (1978), it can be inferred that depending on specific characteristics, Lithuanian teachers were able to make adequate classification decisions on the selection of gifted children. Pegnato and Birch (1959), however, view this practice as an ineffective and inefficient identification process because teachers can be poor talent detectors in underrepresented minority children. Gagne´ (1994) argues that because of the complexity of teacher evaluations, resulting effectiveness and efficiency depend upon the number of students selected by specific nomination methods.

4.6.1 Outcomes: Survey Results

Question 1 (Q1) can be used as a gauge for all of the responses in the survey. Since half of the Lithuanian teachers claimed familiarity with gifted education, some coherent answers were expected, as opposed to as if no one had prior knowledge, which might have produced incoherent responses.

Pre-Survey Question 1: Are you familiar with ‘giftedness or have you attended a lecture on ‘giftedness?’

Of 76 Lithuanian teachers who completed the pre-surveys, 36 (47%) responded ‘Yes’ that they were familiar with ‘giftedness’ or had attended a lecture on the topic, and 37

(49%) responded ‘No’ that they were not familiar with ‘giftedness.’ An additional 3 (4%) participants did not provide a response.

Table 4.11 Q1: Are you familiar with ‘giftedness or have you attended a lecture on ‘giftedness?’

Coding Reports	Number of Responses	% of 76 Responses
Q1 – Read or listened to lectures in gifted education	76	
Yes – Have read or listened to lectures	36	47%
No – Have not read or listened to lecture	37	49%
No response	3	4%

Q1 also can be used to gauge how much Lithuanian teachers understand or are willing to reveal what they know about giftedness. If half of the participants claimed to have prior knowledge of giftedness, and the responses were clearly incoherent, then all were predominantly wrong. It could be inferred Lithuanian teachers understood what they had heard during previous lecture(s) about giftedness when clearly they had not, or if the lecture(s) was theoretical, whether they then were unable to make meaningful connections (practical applications) to their classroom teaching and learning. Because the series of six seminars at Kaunas Technological University was the first professional development programme in gifted education held in Lithuania (2002-2003), it can be assumed that participants were referring to one or more of these previous lectures when they responding to this question.

Pre-and Post-Survey Question 2: What is ‘giftedness?’

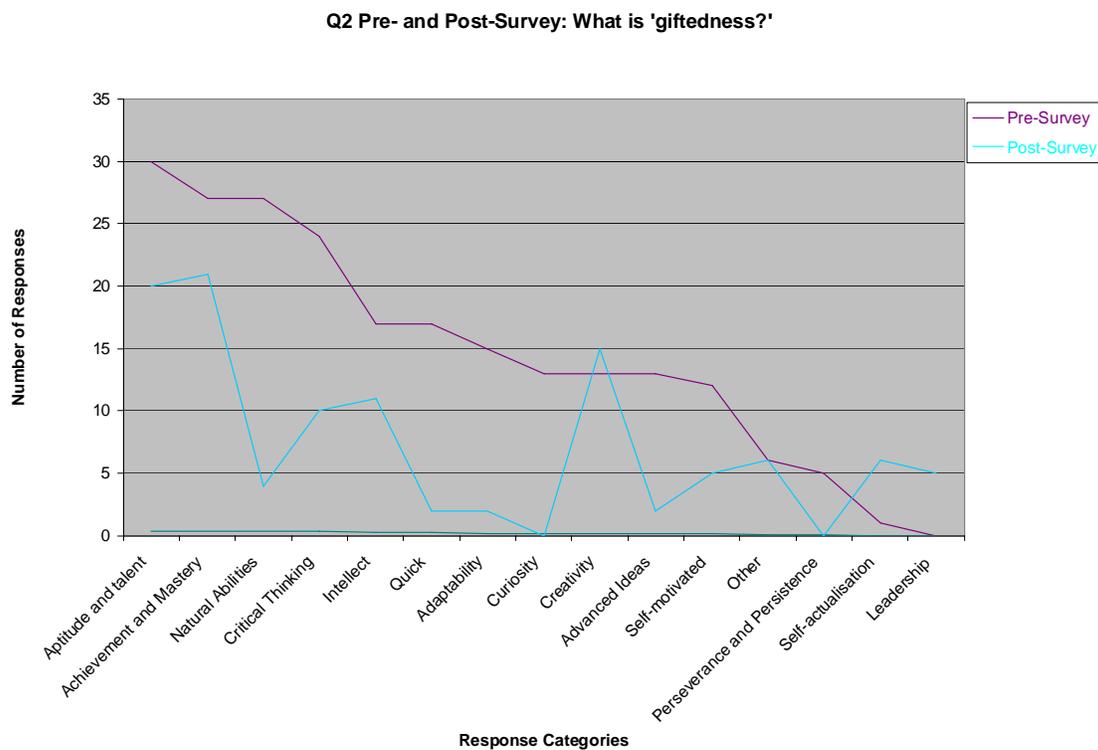
NVivo results reported the following pre-survey indicators of giftedness and binned the data into convenient ranges: ‘Aptitude and Talent’ (30 or 39%); ‘Achievement and Mastery’ and ‘Natural Abilities’ (27 or 36%); ‘Critical Thinking’ (24 or 32%), and ‘Intellect’ and ‘Quickness’ (17 or 22%).

A difference was noted between the findings reported by *Mind Mapping* in the ‘Talent’ category; when *NVivo* combined ‘Talent’ with ‘Aptitude,’ ‘Talent’ changed from last to first position [Appendix J, Q2 Pre-Survey]. In *NVivo*, ‘Aptitude and

Talent’ ranked first (30 or 39%) on the pre-survey and 20 (47%) on the post-survey for Q2. It can be generalised that *Mind Mapping* results identified and stratified categories whilst *NVivo* grouped categories.

Q2 reported ‘Achievement and Mastery’ as the second highest ranking responses of 27 (36%) on the pre-survey and 21 (49%) on the post-survey. Because these characteristics were rated highly, it suggests that Lithuania teachers perceived them as important indicators of giftedness. The category of ‘Achievement and Mastery’ appears again in Lithuanian teachers’ responses to Q3 when they were asked to define qualities of gifted learners [Figure 4.2]. This category was reported to rank second highest in the pre- and post-survey results (30 or 39% and 18 or 42%) of Q3.

Figure 4.1 Q2 NVivo Pre- and Post-Survey: What is giftedness?'



Interestingly, in the Q2 pre-survey, ‘Adaptability’ received 15 (20%) and dropped to 2 (5%) in the Q2 post-survey. It was not clear whether Lithuanian teachers perceived gifted pupils do not adapt as well in classroom situations or if their expectations of a gifted child changed. Because ‘Curiosity’ dropped from 13 (17%) in the pre-survey to 0 (0%) in the post-survey, it is questionable if teachers now still feel they are

meeting the needs of gifted children in the classroom or if they are seeing that children are bored with the regular assignments.

NVivo reported the following responses on the post-survey results of Concept of Giftedness: 'Achievement and Mastery' (21 or 49%); 'Aptitude and Talent' (20 or 47%); 'Creativity' (15 or 35%); 'Intellect' (11 or 26%); 'Critical Thinking' (10 or 23%), and 'Self-Actualisation' (6 or 14%). Similar to the *Mind Mapping* results [Appendix J, Q2 Pre- and Post-Surveys], *NVivo* confirmed findings that revealed 'Achievement and Mastery' and 'Aptitude and Talent' as high frequency categories in both the pre-and post-surveys.

NVivo also confirmed the advance of 'Creativity' from the pre-survey (11%) to the post-survey (13%), although this change was not as dramatic as reported by *NVivo* (17% in the pre-survey to 35% in the post-survey). 'Quickness' appeared less valued in the post-surveys (22% in the pre-survey to 5% in the post-survey).

In the pre-survey, *NVivo* confirmed analysis of *Mind Mapping* to illustrate that 'Leadership' newly appeared in the post-survey (4% *Mind Mapping* and 12% *NVivo*) and was not evidenced in the pre-survey [Appendix J, Q2 Post-Survey]. Apparently, teachers did not initially highly value this characteristic in gifted children.

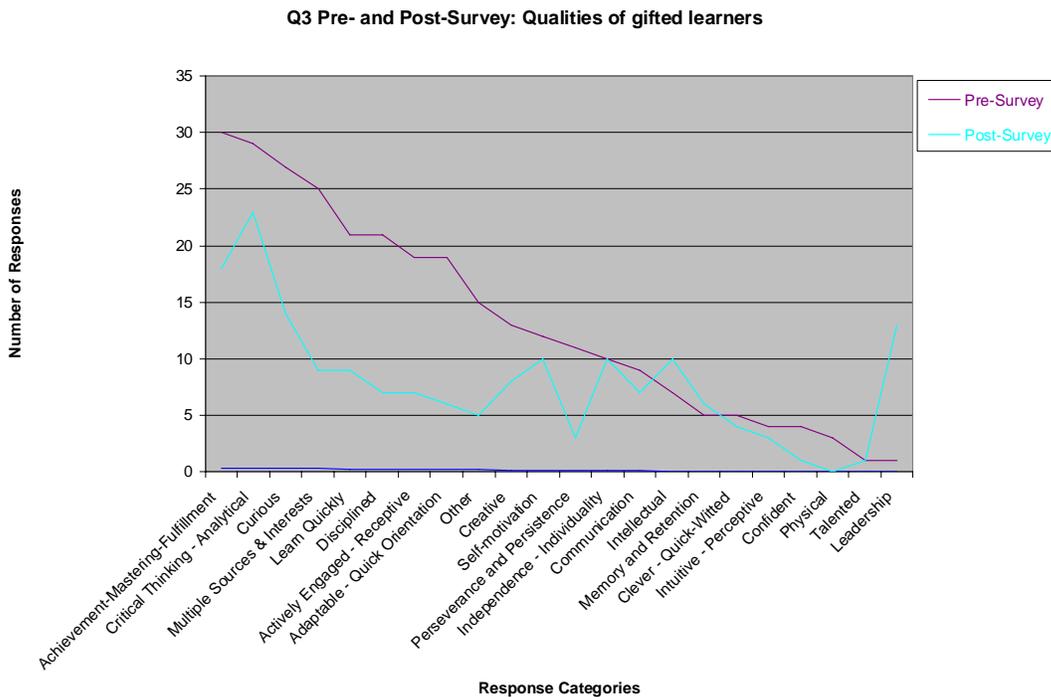
On the whole, however, the participant responses in both *Mind Mapping* and *NVivo* reflected Lithuanian teachers perception of giftedness now favouring individualism ('Creativity,' 'Self-Actualisation,' and 'Leadership'), whilst they still maintained their original beliefs in regard to the demonstration of giftedness through 'Achievement.'

Pre-and Post Survey Question3: Qualities of Gifted Learners

When asked to describe their gifted pupils, Lithuanian teacher responses to Q3 [Figure 4.2] appeared not as focused as in Q2 [Figure 4.1]. As a result of the professional development programme, Q3 categories changed from 13 (pre-survey) to 14 (post-survey) responses and more diverse responses were given by Lithuanian teacher participants. It can be inferred that Lithuanian teachers were more comfortable describing the characteristics exhibited in their gifted pupils than the characteristics of 'giftedness' in general.

Despite a wide variation of descriptors used, the primary indicator of giftedness was cited as ‘Achievement - Mastering – Fulfilling’ by 30 (39%) participants in the pre-survey, and 18 participants (42%) in the post-survey. ‘Critical Thinking - Analytical’ was the second most popular descriptor with 29 (38%) responses in the pre-survey and 23 (53%) responses in the post-survey. Although the order varied slightly, both the pre- and post-surveys revealed four characteristics of a gifted pupil that attained highest ranking: ‘Critical Thinking – Analytical,’ ‘Achievement - Mastering – Fulfilling,’ ‘Curious,’ and ‘Creative.’ These characteristics suggest that Lithuanian teachers highly regard critical and creative thinking for high achievement in gifted pupils.

Figure 4.2 Q3 Pre- and Post-Survey: Qualities of Gifted Learners



An increase in the number of participants citing ‘Creativity’ as a descriptor from the pre-survey (13 or 17 %) to post-survey (22 or 51 %) indicated that, after the professional development training, ‘Creativity’ was the second highest identified characteristic of a gifted pupil. This increase could reflect Lithuanian teachers’ exposure to the Renzulli Three-Ring Conception of Giftedness Model (1977), which

highlighted three identifiers: ‘above average intelligence, task commitment, and creativity.’ It could also reflect the Schoolwide Enrichment Model (Renzulli & Reis, 1997) that was presented in the professional development seminar.

Although participants may have favoured ‘creativity,’ one teacher’s post-survey response asked for clarification:

I want to hear more about the practical work with gifted. Are there activities and subjects just for developing creativity? When and how are these activities organised – after or during the lesson?

‘Leadership’ was another area that increased from the Q3 pre- to post-survey (1 or 1% in the pre-survey to 13 or 30% in the post-survey). After the professional development programme, it can be inferred that Lithuanian teachers recognised the importance of classroom leadership for gifted children because these students are the potential future leaders of the country.

Exposure to the Enrichment Triad Model (Renzulli, 1977) and Schoolwide Enrichment Model (Renzulli & Reis, 1997) could have increased teachers’ awareness of how to provide leadership opportunities for gifted pupils in the classroom through Type III activities, such as providing independent study options and work with mentors.

A slight reduction in the number of different concepts used to describe gifted pupils in the post-survey data suggests the professional development programme encouraged Lithuanian teachers to develop a specialised (or more focused) vocabulary to describe characteristics of giftedness. Teachers seemed more certain of their descriptions after the training, which might be a result of the succession of seminars in the professional development series during which theoretical pedagogy was presented.

Interestingly, some of the more negative descriptions, such as ‘dumbing down’ disappeared from the pre-survey in the post-survey. It can be inferred that after the training, Lithuanian teachers were less inclined to think analytical processes are the only measure of giftedness.

The category of 'Confident' fell from 4 (5%) to 1 (2%) in Q3 pre- to post-surveys. It was unknown if Lithuanian teachers recognised that pupil's confidence level necessarily implied knowing they were gifted. Ruf (2005) refers to this notion as the 'impostor syndrome' and suggests some gifted children do not believe they are gifted even if they have been recognised or labelled as such.

Lithuanian teachers did not use objective terminology in their descriptions of gifted pupils. The researcher questioned if the cohort didn't immediately consider specialised terminology to be useful when describing gifted pupils or whether it supported the notion that giftedness is a complex concept with many dimensions to simply be reduced to a single figure of merit. These questions will be addressed in Section 4.6.1.

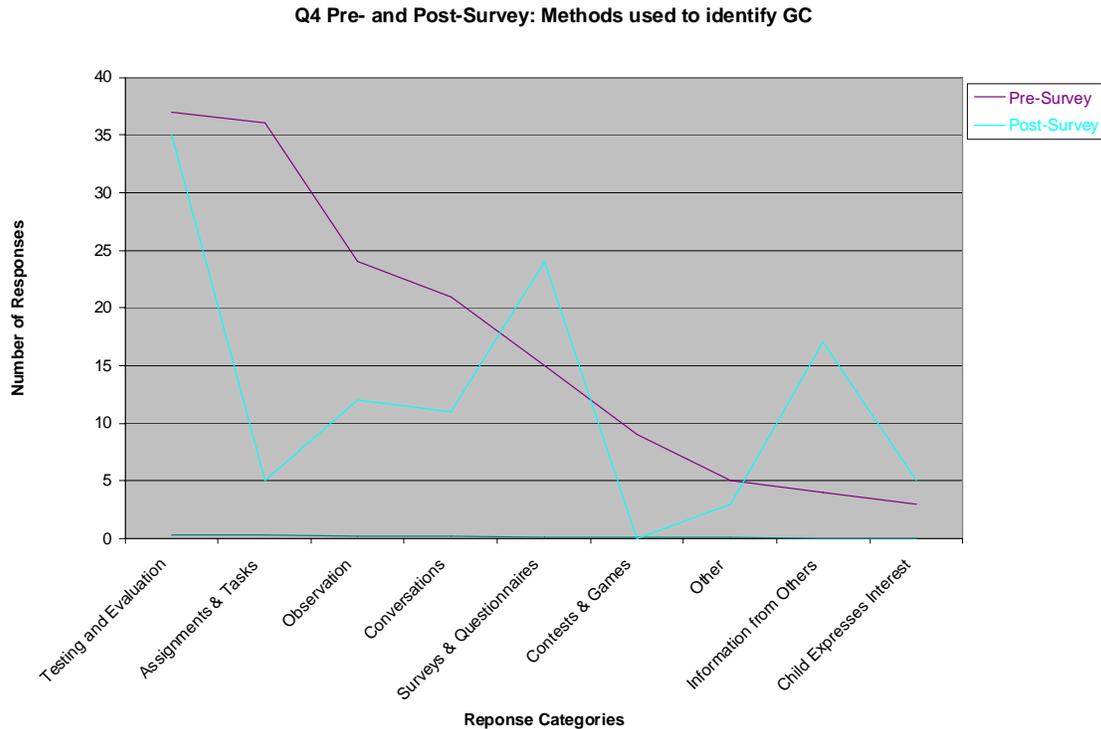
Pre-and Post Survey Question4: Methods Used to Identify Gifted Children

In Q4 data results [Figure 4.3], the language used in the pre-survey is more descriptive than definitive, which indicates that participants aren't certain about methods to identify gifted children. In the post-survey, the language is extremely definitive, i.e., single word statements. However, 'Testing and Evaluation' stays at the top of the pre- and post-survey list: 37 (49%) in Q4 pre-survey and 35 (81%) in Q4 post-survey.

This position may indicate that Lithuanian teachers intuitively see good results using class tests as a method of identifying gifted children, but also, that poor results perhaps exclude a child from being labelled as gifted. For example, if a child performs badly on a test, ergo he is not gifted.

Only one person suggested that parents be included in the pre-survey's method of identification as compared to ten suggestions in the post-survey. Following the professional development programme, Lithuanian teachers now considered parental input more valuable in the identification process.

Figure 4.3 Q4 Pre- and Post-Survey: Methods Used to Identify Gifted Children



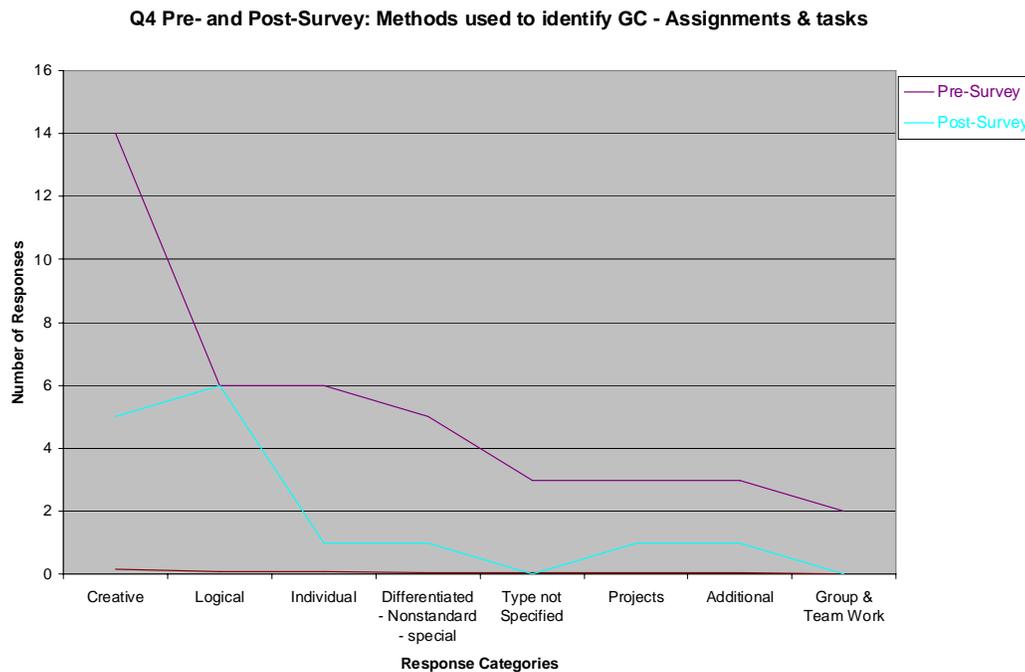
‘Surveys and Questionnaires’ rose in popularity from 15 (20%) in Q4 pre-survey to 24 (56%) in Q4 post-survey. Apparently, Lithuanian teachers like to have an objective measure of identifying gifted pupils. Although ‘Assignments and Tasks’ received 36 (47%) in the pre-survey, this category fell to 5 (12%) in the post-survey. A closer examination of the variables listed preferences that indicated Lithuanian teachers favoured creative assignments and tasks over all others: ‘Logical;’ ‘Individual;’ ‘Differentiated;’ ‘Projects;’ ‘Additional;’ ‘Type Not Specified,’ and ‘Group Work’ [Figure 4.4].

‘Observations’ dropped by half from Q4 pre-survey (24 or 32%) to Q4 post-survey (12 or 28%). Did teachers now find other methods to use that would be more objective? Were they looking for a way that could be quantified? ‘Information from Others’ rose from 4 (5%) in the pre-survey to 17 (40%) in the post-survey. It can be inferred that exposure to Renzulli nomination forms influenced Lithuanian teachers to involve teachers, parents, peers, and pupils themselves in the gifted identification process.

Interestingly, ‘Contests and Games’ fell from 9 (12%) in the pre-survey to 0 (0%) in the post-survey. Obviously, Lithuanian teachers were valuing other methods of identifying gifted children than competitions and contests, e.g., Olympiads. Q4 pre-survey responses illustrated many Lithuanian teachers reported several main ways to identify gifted pupils; however, others did not have a clear or consistent idea, and gave ‘No Response.’

Q4 post-test indicates that, overall, Lithuanian teachers now appeared to have more consistent selection for how to identify gifted children as evidenced by the increased number of concepts. Because there are more ideas in the pre-test responses of ‘Creativity’ and ‘Analysis of Work,’ it appears that these are two familiar areas in which Lithuanian teachers use to identify gifted children. The post-survey indicates the new idea of nomination forms from teachers, parents, peers, and students themselves, which have gained enough importance to be included in the responses.

Figure 4.4 Q4 Pre-and Post-Survey: Methods Used to Identify GC Assignments and Tasks



In addition to Lithuanian teachers now having more consistent selection for how to identify gifted pupils, Q4 Pre- and post-survey responses reported that Lithuanian teachers addressed various methods to identify assignments and tasks for gifted children [Figure 4.4]: ‘Creative,’ ‘Logical,’ ‘Individual,’ ‘Differentiated,’ ‘Projects,’ ‘Additional,’ ‘Type not Specified’, and ‘Group and Team Work.’

‘Creative’ ranked first in both the pre- (14 or 18%) and post-surveys (5 or 12%). It can, therefore, be inferred that Lithuanian teachers employed various methods to meet the requirements of teaching gifted pupils in the classroom.

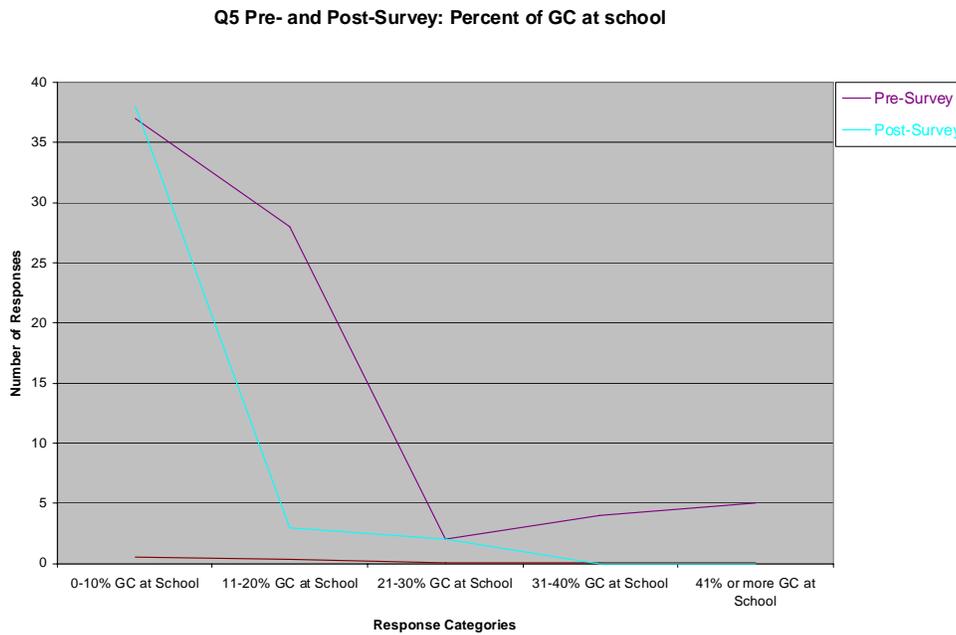
Pre-and Post-Survey Question 5: Percentage of Gifted Children at Your School

A comparison of Q5 data [Figure 4.5] results of ‘Percent of Gifted Children at School’ appear to align with statistics suggested in other Lithuanian schools and in other countries [Chapter 5]. The responses suggesting 20% or higher at first may appear wrong in some way.

The post-survey data appears more realistic with 38 (88%) claiming a population of 0-10% gifted children in their school. This figure implies professional development can have positive effects on teachers’ expectations.

If there really were 5 (7%) of teachers in the pre-survey who claimed 41% of their school’s population consisted of gifted children, that number also can suggest expectations for students had been set too low at first. These issues are further examined in Section 4.6.1.

Figure 4.5 Q5 Pre-and Post-Survey: Percent of GC at School

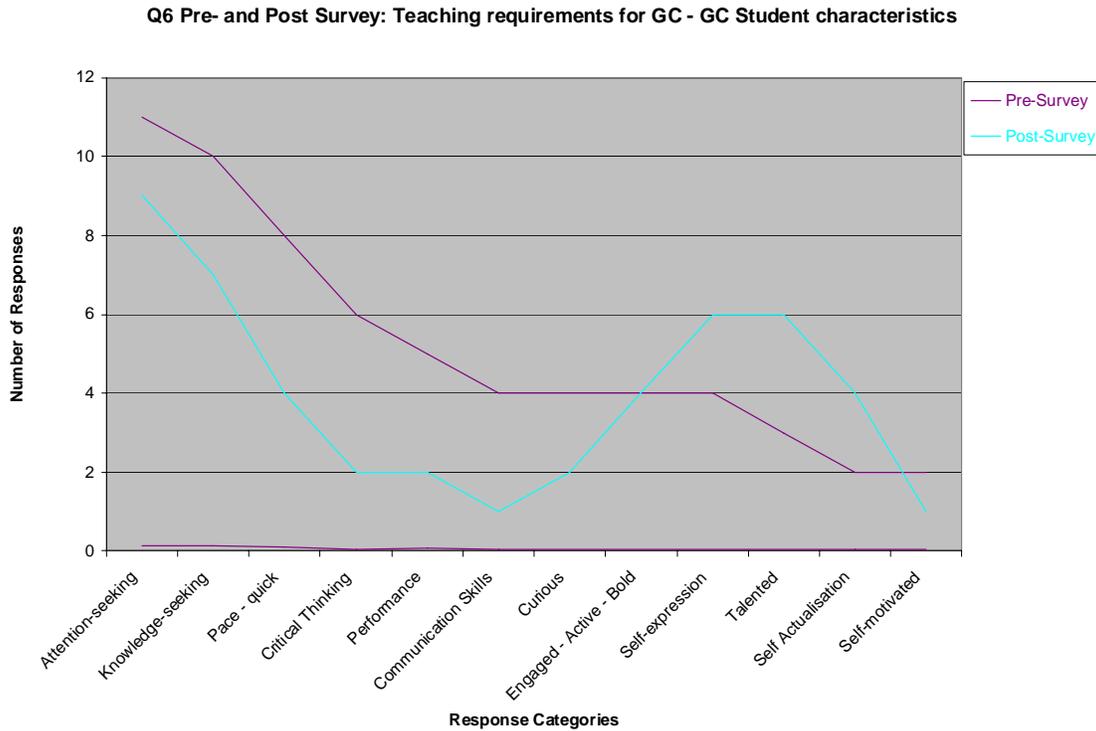


Pre-and Post Survey Question 6: Teaching Requirements for Gifted Children

Generally, both pre- and post-survey results to Q6 [Figures 4.6; 4.7, and 4.8] suggest that gifted pupils need differentiation to deepen and broaden their education. The necessity for differentiation implies that even without the professional development training of the researcher’s seminar, this need to meet requirements for gifted pupils in the classroom was recognised by Lithuanian teachers, and that teachers felt challenged to offer appropriate provisions when they saw a child performing well.

Interestingly, the number one response in the pre-survey (19 or 25%) was that a gifted child needed differentiated assignments. This was also the number one response in the post-survey (7 or 16%).

Figure 4.6 Q6 Pre- and Post-Survey: Teaching Requirements for GC - Student Characteristics



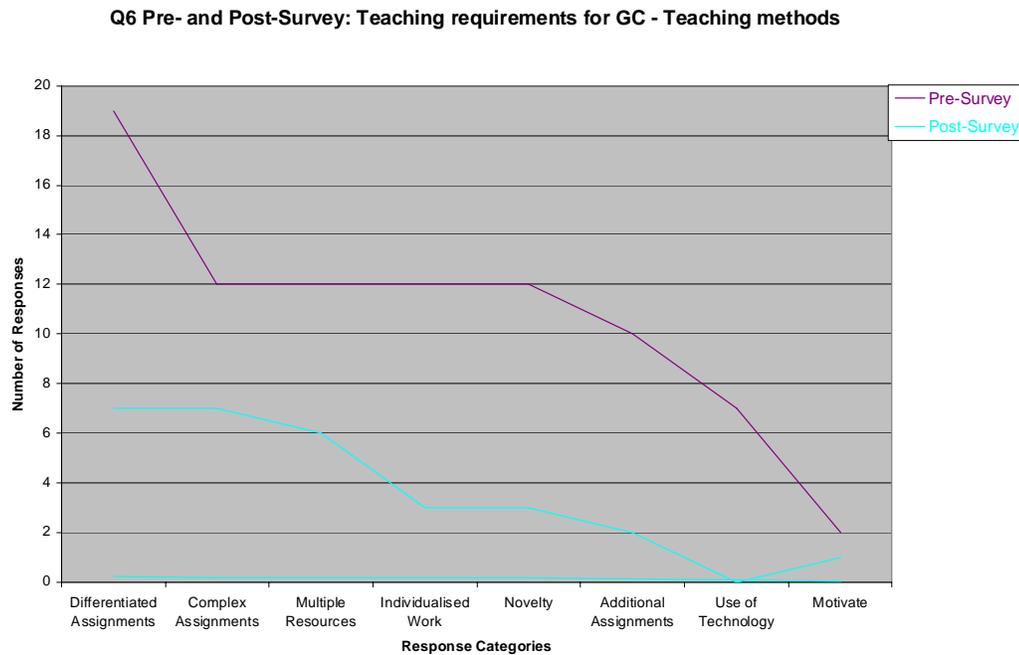
Pre-and Post-Survey Question 6: Teaching Requirements for GC Teaching Methods

In addition to differentiation, other teaching methods were identified in both pre- and post-survey results for teaching requirements of gifted children: ‘Complex Assignments,’ ‘Multiple Resources,’ ‘Individualised Work,’ ‘Novelty,’ ‘Additional Assignments,’ ‘Use of Technology’, and ‘Motivation.’ Similar to Q2, Figures 4.2 and 4.3, ‘Self-Motivation’ appeared low in Q6 results (2 or 3% in the pre-survey and 1 or 2% in the post-survey). However, it was unknown if motivation was low because gifted children were not receiving an appropriate education in the classroom.

Lithuanian teachers responded with increased numbers in the Q6 post-survey to students characteristics of: ‘Attention-Seeking’ (9 or 21%); ‘Knowledge-Seeking’ (7 or 16%); ‘Self-Expression’ (6 or 14%); ‘Talented’ (6 or 14%); ‘Engaged – Active – Bold’ (4 or 9%), and ‘Self-Actualisation’ (4 or 9%). It can be inferred that exposure o Gardner and his Multiple Intelligences Model (1983) during the professional

development may have influenced ‘Talent’ to increase by 10% from the pre- to post survey results.

Figure 4.7 Q6 Pre- and Post-Survey: Teaching Requirements for GC - Teaching Methods

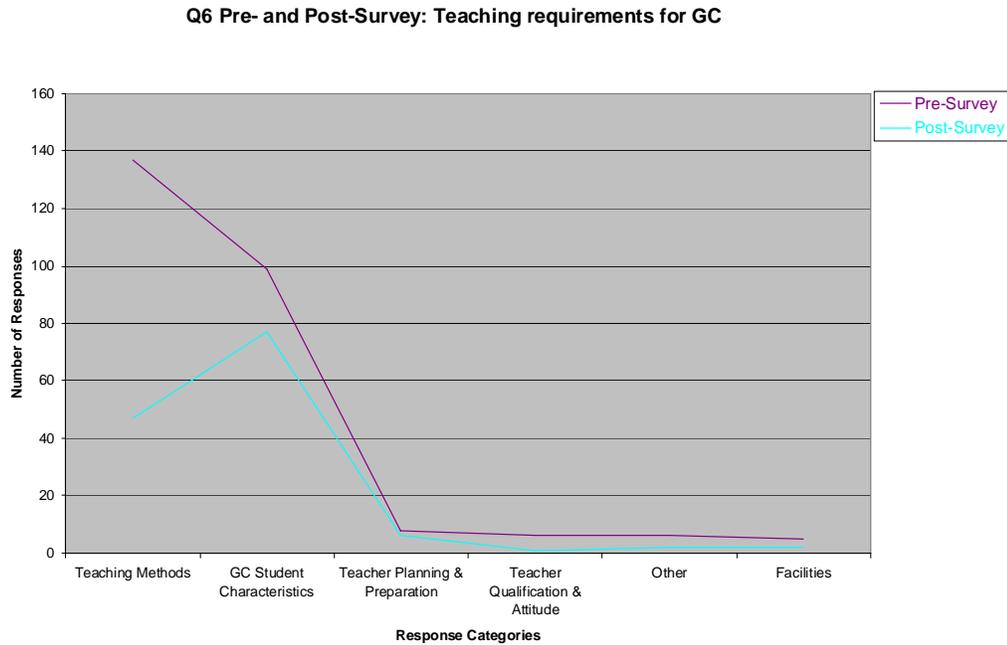


To summarise, Q6 pre- and post-surveys reported teaching requirements for gifted children consisted of [Figures 4.8]: ‘Teaching Methods,’ ‘Teacher Planning and Preparation,’ ‘Teacher Qualifications and Attitude,’ ‘Facilities,’ ‘Other,’ and ‘Gifted Student Characteristics.’

In the Q6 post-survey, Lithuanian teachers reported negative behaviour in gifted students, which suggests that teachers were comfortable identifying these issues: ‘Think they’re always right;’ ‘Unwilling to be different;’ ‘Non-Adaptability;’ ‘Create chaos;’ ‘Agitate the class;’ ‘Too active,’ and ‘Want to be noticed.’

The category of ‘Attention-Seeking’ rose from 11 (14%) in the pre-survey to 9 (21%) in the post-survey. One of the participants asked, “What is important? Do we need gifted monsters?”

Figure 4.8 Q6 Pre- and Post-Survey: Teaching Requirements for GC



This point was elaborated on by Kaunas Technological University's

Psychologist/Researcher I. (Personal Conversation. 3 February 2003):

No one likes gifted children at school. They feel bad among other children. Other children think that they're a social problem, especially boys in cities. They have no intrinsic motivation, and without contests, there are no extrinsic rewards. It's better with girls. They're respected more in villages than towns, where people are interested in the individual because of lower class sizes. Teachers don't like gifted children. They say that they can be better. They want the parents and government to take care of educating them.

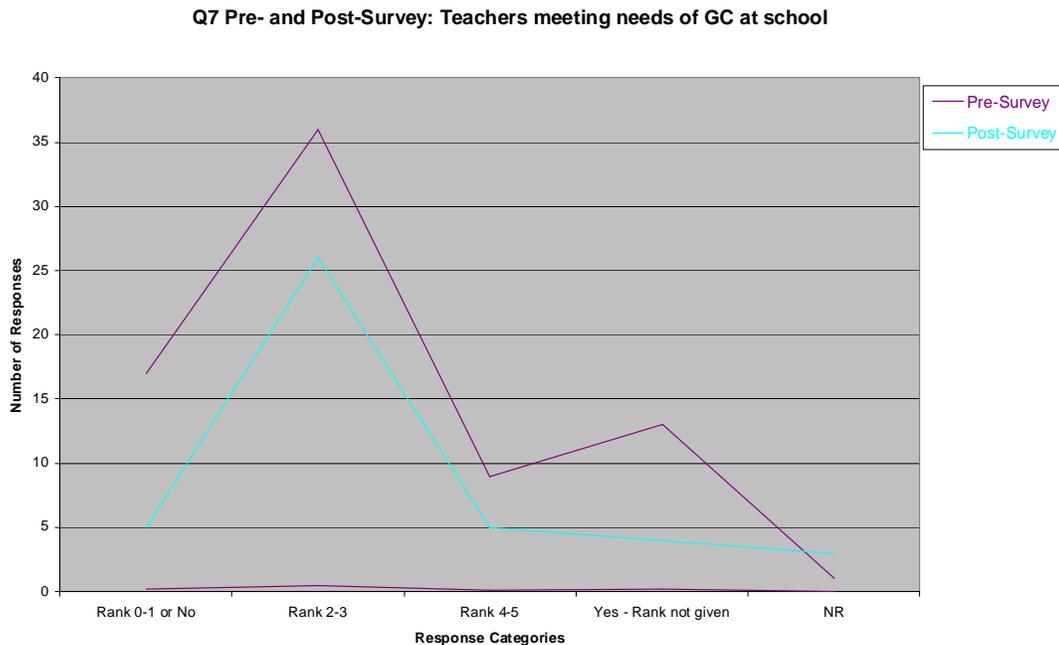
Teacher J. (Interview. 29 January 2003) agreed that 70% of gifted pupils are not honoured at schools and, shamefully, leave for the *gymnasia*. If teachers don't raise the educational prestige of all schools to stimulate gifted children, it will be a 'turn for the worse.' Teachers' negative attitude towards the possibly different socialising of gifted children has been explained by Geake and Gross (2008) as an evolved 'suspicion of social outliers.' Consistent with the data here, attitudes of teachers in

the UK and Australia towards gifted students’ separate socialising became more positive after professional training.

Q7 Pre- and Post-Survey: Do Teachers Satisfy these Requirements for the Gifted?

Lithuanian teachers felt they were meeting the requirements of gifted pupils in the classroom (58 or 76% in pre-survey and 35 or 81% in post-survey) [Figures 4.9; 4.10, and 4.11]. Only 17 (22%) in the pre-survey and 5 (12%) in the post-survey reported teachers were not meeting the needs of gifted pupils in the classroom.

Figure 4.9 Q7 Pre- and Post-Survey: Teachers Meeting Needs of GC at School

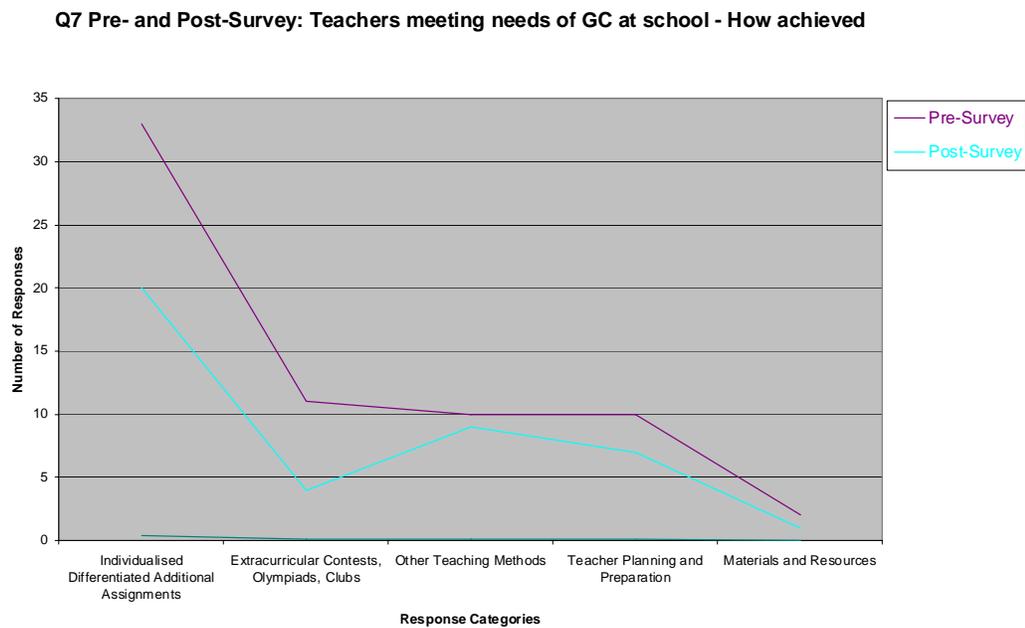


Pre- and Post-Survey Question 7: Teachers Meeting Needs of GC at School: How Achieved

In the Q7 pre-survey, 11 (14%) Lithuanian teachers claimed to offer extracurricular project activities, e.g., Olympiads [Figure 4.10] and 33 teachers claimed to ‘differentiate’ work for students work by offering more assignments. It was unclear whether teachers delivered more of the same kind of work or if they actually

differentiated the content, process, and/or product. In the Q7 post-survey, 4 (9%) offered ‘Extracurricular Contests, Olympiads, and Clubs’ and 20 (47%) teachers said they ‘Differentiated the Assignments’ [Figure 4.10]. Thus, ‘differentiation’ was the primary method employed by Lithuanian teachers to meet the requirements of teaching gifted pupils in the classroom, and extracurricular contests and clubs ranked second.

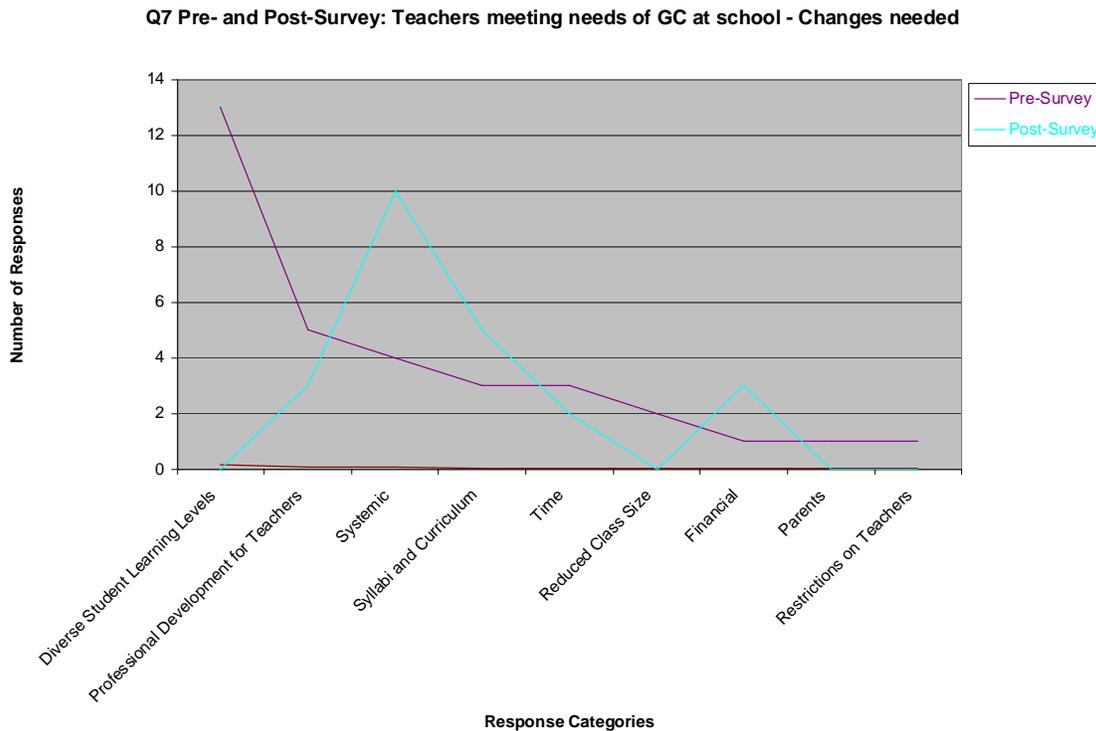
Figure 4.10 Q7 Pre- and Post-Survey: Teachers Meeting Needs of GC at School - How Achieved



In response to how Lithuanian teachers achieved meeting the essentials of gifted pupils in the classrooms, an increase of responses occurred in Q7 pre- to post-surveys: ‘Individualised differentiated additional assignments’ 33 (43%) to 20 (47%); ‘Teacher planning and preparation’ 10 (13%) to 7 (16%), and ‘Other Teaching Methods’ 10 (13%) to 9 (21%). Interestingly, ‘Extracurricular contests, Olympiads and Clubs’ decreased from 11 (14%) to 4 (9%). It can be inferred that teachers realised additional ways of meeting the requirements of gifted pupils in Lithuanian classrooms.

Q7 ‘Pre- and Post-Survey: Teachers Meeting Needs of Gifted Children at School – Changes Needed’ reported results that ‘Systemic’ rose from 4 (5%) to 10 (23%). ‘Diverse Student Learning Levels’ dropped from 13 (17%) to 0 (0%). Ironically, ‘Professional Development for Teachers’ remained at 5 (7%) in the pre-survey and dropped to 3 (7%) in the post-survey. The response ‘Need for a Syllabi and Curriculum’ rose from 3 (4%) in the pre-survey to 5 (12%) in the post-survey. ‘Time’ increased from 3 (4%) to 2 (5%). It could be expected that ‘Financial’ rose from 1 (1%) to 3 (7%). ‘Reduce Class Size’ was not perceived as a problem by Lithuanian teachers, as indicated by the drop in the pre- to post- survey from 2 (3%) to 0 (0%).

Figure 4.11 Q7 Pre- and Post-Survey: Teachers Meeting Needs of GC at School - Changes Needed



Pre- and Post-Survey Question 8: Assistance Needed in Lithuanian Schools for GC

Q8 Assistance Needed to Help Gifted Children at School pre-survey results reported 16 (21%) teachers were interested in creating a ‘Systemic’ gifted identification process. This interest was confirmed with 10 (23%) participant responses in the post-survey. It was surprising that the percentage was not higher since developing a systematic gifted

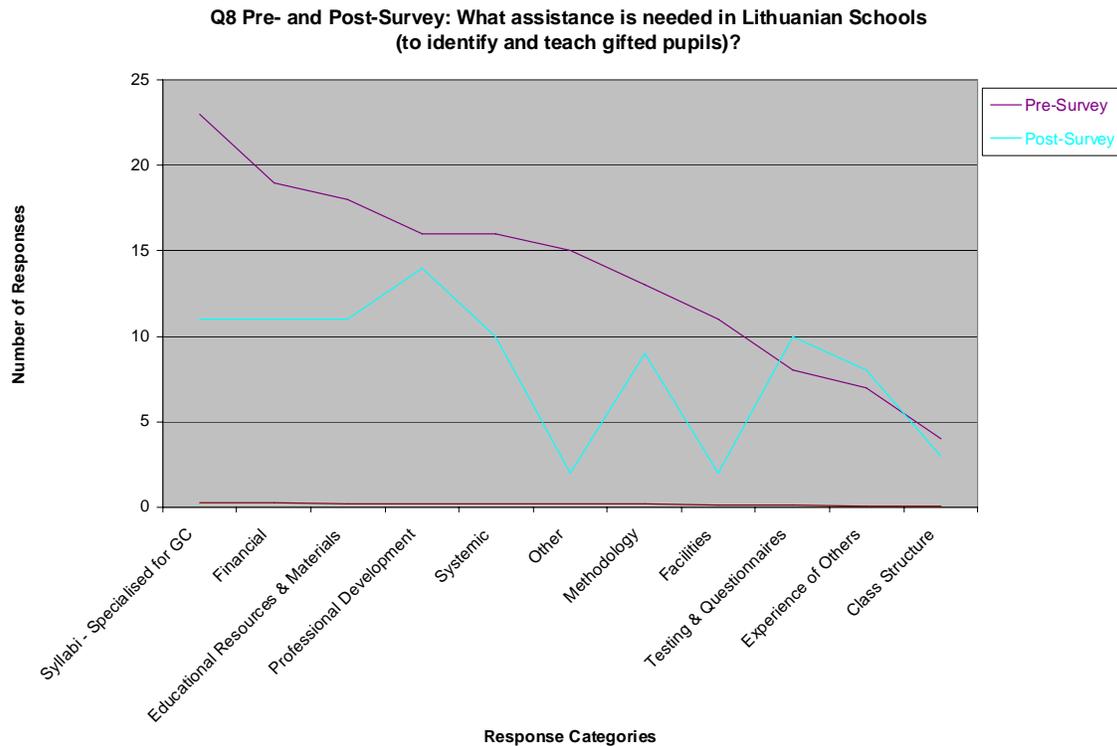
identification process was a main goal of the professional development programme. Because Lithuanian teachers were attending the professional development programme, it could be inferred that they assumed a systematic gifted identification process would soon be implemented and, thus, it was not needed as much as a syllabi for specialised teaching of gifted children. This can be evidenced by the highest number of responses reported for the need of syllabi in both pre- and post-survey results (23 or 30% and 11 or 26%).

An increase in Lithuanian teachers' responses to the category of 'Experience of Others' rose from 7 (9%) to 8 (19%). The increase in percentage could have been a result from Lithuanian teachers' exposure at the professional development programme to the Renzulli nomination forms (Renzulli & Reis, 1997). The Renzulli nomination forms involved input from both parents and pupils in addition to that of teachers.

Comparison of pre- and post-surveys in both categories of 'Professional Development' (16 or 21% and 14 to 33%) and 'Methodology' (13 or 17% and 9 or 21%) displayed an increase in teachers' responses [Figure 4.12]. It was apparent that Lithuanian teachers wanted more professional information for their work with gifted pupils and methods to teach gifted pupils in the classroom.

It was unusual that results of 'Syllabi – Specialised for Gifted Children' decreased from the pre- to post-survey (23 or 30% to 11 or 26%). Because Lithuanian teachers already made this request known by their response to the previous question (Q7), it was unknown if they believed they had already communicated this need and, therefore, focused on different concerns.

Figure 4.12 Q8 Pre- and Post-Survey: Assistance Needed in Lithuanian Schools for GC



Although interesting, responses to Q8 [Figure 4.12] were also contradictory: Lithuanian teachers felt they were meeting the needs of gifted pupils in the classroom (58 or 76% in pre-survey and 35 or 81% in post-survey); however, ‘Syllabus’ was still wanted (23 or 30% in the pre-survey and 11 or 26% in the post-survey). In addition, ‘Testing and Questionnaires’ also were sought by teachers (3 or 11% in the pre-survey and 10 or 23% in the post-survey). Two of the participants in the pre-survey reported the need for more time. It would be of interest to see if parents or pupils were in agreement. One teacher wrote:

Our education system is such that the classroom work is with children of various abilities, including gifted children. How do we work with all of them? Which children in the classroom should get priority if we have students with disabilities?

A second teacher during the professional development asked:
 Is forming classes [for the gifted] according to their intellectual test tolerated?
 Does this practice exist somewhere?

This teacher's comment implies that grouping according to ability level either does not exist, or the teacher is not aware of its existence at school. It also implies the teacher may not have considered ability grouping as an option for gifted children in the Lithuanian classroom.

As might have been expected, 'Financial Needs' was rated highly in Q8; however, this category increased only slightly from the pre-survey (19 or 25%) to the post-survey (11 or 26%) [Figure 4.12]. But, surprisingly, 'Syllabus' appears as the primary need in the pre-survey responses (23 or 30%) and was ranked second in the post-survey (11 or 26%).

This contrasts with teachers' claim in Q5. Despite 80% of teachers who claimed they were meeting the requirements of gifted pupils in Lithuanian classrooms, teachers still indicated they wanted a syllabus to help them do the work as well as tests to identify gifted children.

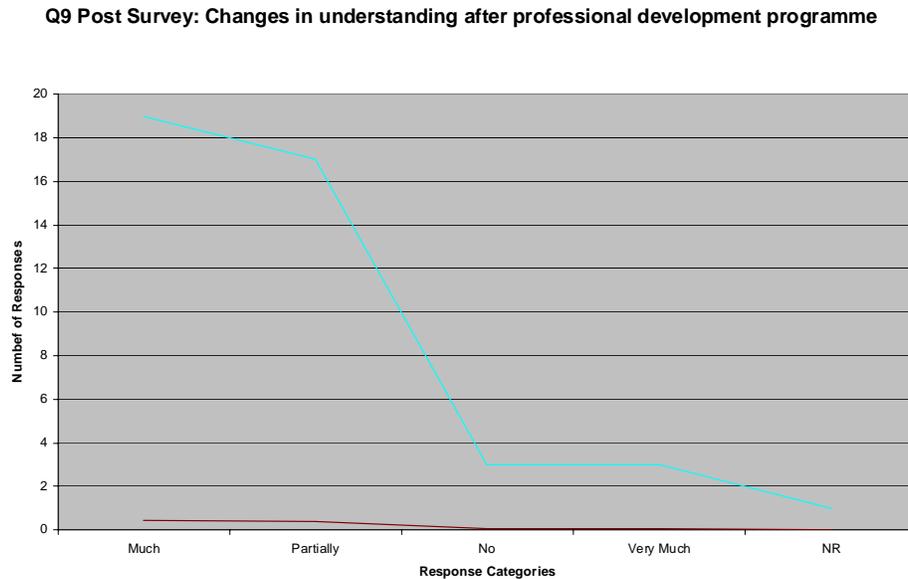
In the Q8 pre-survey 16 (21%) Lithuanian teachers were primarily concerned with 'Systematic' or creating a system for the identification of gifted pupils [Figure 4.12]. Although this was confirmed in the post-survey, 'Professional Development' (14 or 33%) was the predominant concern here. One teacher wrote:

Who makes the decision, and what [are the] criteria for [Lithuanian] teachers if they are selected to work with the gifted?

Pre and Post-Survey Question 9: Has your concept of 'giftedness' changed after professional development?

At the conclusion of the professional development, a spokesperson thanked the researcher, presented a picture of a bird, and then announced "You have opened our minds, and given us wings to teach gifted children." The statement supports the Q9 post-survey results [Figure 4.13], from which it can be inferred that many Lithuanian teachers' perceptions of giftedness changed after the professional development programme: 17 (40%) 'Partially;' 19 (44%) 'Much;' 3 (7%) 'Very Much.' Only 3 (7%) of the participants claimed that professional development did not change their outlook at all, and 1 (2%) gave no response.

Figure 4.13 Q9 Post-Survey: Changes in Understanding after Professional Development Programme



4.7 Professional Development Study General Discussion

In addressing the first research question of this study, both pre-and post- surveys were used as structured instruments to obtain and present Lithuanian teachers' change of perceptions resulting from the professional development programme in gifted education. Initially, *Mind Mapping* was used to illustrate conceptual patterns that would help obtain insight into changes of Lithuanian teachers' perceptions of giftedness before and after the professional development programme. *NVivo* was then employed to analyse and code the data and confirm the interpretations of the findings.

As a measure of educational change (Fullan, 1993; and Heller, 1998), some possible limitations surfaced. People, subject to various confirmation biases, have a tendency to interpret data to verify existing beliefs. In the preliminary data, it was reported that Lithuanian teachers used intuition as a primary method of identifying gifted pupils. This bias can be a problem because once people make up their minds about an idea or concept they become less unlikely to change (Brehm et al., 1999). However, it was not the case here, as the post-survey responses indicated the majority of teachers had

changed their thinking (39 or 91%). Change of thinking is important as a practical outcome because teacher nomination is currently the most common method for identifying gifted pupils internationally (Porter, 1999). Richardson (2001: 125) cautions that a 'heavy reliance on teacher nomination may not necessarily yield the best candidates, unless the nominating teachers have had training in identifying gifted children.' Therefore, it was important for Lithuanian teachers to utilise teacher nomination in combination with other methods of identification (e.g., parent and student nomination, tests and evaluations, etc.) to obtain the most reliable results for identifying gifted pupils.

Throughout the world, different methods to define giftedness exist. Sternberg and Zhang (1998) stress theories of giftedness reside in the mind of theorists who study concepts of a phenomenon rather than the phenomenon itself. Nevertheless, theories of giftedness do influence school administrators and teachers in the identification of the gifted, and in their instruction. The definition that Lithuanian teachers wrote impacted the process that they created for the identification of gifted children. That is, the criteria which were developed dictated who was labelled as 'gifted.' Rohrer (1995: 279) found that even though teachers' preconceived notions of giftedness could preclude children with certain personality traits from receiving consideration as nominees for gifted programmes, teachers were able to recognise intellectual potential in those who did not fit the stereotypes of high achieving students.

An additional question that arose from a Lithuanian teacher interviews was, 'What characteristics do teachers need to teach the gifted?' It was assumed that teaching gifted pupils had to be hard, and that it was not easy to organise teaching a differentiated curriculum. One teacher asked, "Do teachers have to be gifted to teach gifted children?" Another teacher stated, "Yes, [Lithuanian] teachers now meet the needs of gifted [pupils], but [they] have to [personally] learn how to do this all the time" (Interview. Teacher D. 23 February 2005). Unlike the Soviet era, when special needs and gifted pupils were not taught in regular schools, Lithuanian teachers today face the challenge of teaching to meet the needs of all students in the classroom. Because a gifted education curriculum does not yet exist, teachers must design opportunities and create materials to provide a challenging education for gifted pupils.

Thus, even veteran teachers experience a learning curve as they figure out how to accomplish all that is being required of them.

Mention must be made of the ‘Hawthorne Effect’ i.e., subjects’ awareness that they are being studied causes them to behave differently from how they would behave if they were not being studied, a factor which may pose a threat to the validity of the study. As representatives of their school, Lithuanian teachers who attended the professional development programme came to gain new information in gifted education from an American educator and to develop a gifted identification process for their school. However, because anonymity was maintained, i.e., no names written on the pre- and post-surveys and no photographing or videotaping during the pre- and post-surveys, this precaution presumably countered a potential Hawthorne effect.

A number of issues were raised out of the *NVivo* analysis. In Q2 ‘Concept of giftedness,’ the question arose whether Lithuanian teachers could discuss different concepts of giftedness in the development of a common language. A teacher wrote:

If people don’t have a vocabulary to describe giftedness, how can they [be expected] to identify or teach to gifted levels?

Interestingly, this new vocabulary was not always used in a positive sense; in the pre-survey, it was used to describe negative characteristics of gifted children. Thus, Lithuanian teachers appeared to be more likely to consider non-analytical processes in the identification of giftedness. Renzulli poses the idea that intelligence is not a unitary concept; rather, there are many forms of intelligence. Renzulli’s idea that intelligence is not a unitary concept reinforces the myth [Webb et al., 2007; and Winner, 1996; Chapter 3] that ‘Gifted children have to be gifted in all areas.’ Thus, research and measurement are required to understand how children learn best and to understand how to assess their skills without trying to combine them into a single, possibly meaningless number (Renzulli, 1998 as cited in Baum et al., 1998).

The different expectations of giftedness held by the Lithuanian teachers after the professional development programme indicated the importance of characteristics such as ‘creativity’ and ‘leadership’ [Figures 4.2 and 4.4]. For example, although 27 (36%) of Lithuanian teachers reported that gifted abilities came from natural abilities

in the Q2 'Concept of Giftedness' pre-survey, only 4 (9%) agreed with this theory in the post-survey. The change probably resulted from teachers reflecting upon and analysing their gifted pupils' abilities in different areas of intelligence during and after workshop sessions. In fact, on the first day of the professional development training, one teacher stated:

I didn't know that gifted pupils worked [more quickly] and understood material more easily. I also learned that creativity can be a characteristic of giftedness.

(Interview. Teacher R. 30 January 2003)

Q3 'Characteristics of a gifted learner' data became much more focused with emotional factors more prominent after the professional development, as suggested in Gagné's Differentiated Model (1985). The development of intrapersonal (self-awareness), interpersonal (empathy, social responsibility), adaptability (problem solving, flexibility), stress management, and a general optimistic mood are all contributing factors to the change in focus (Goleman, 2000 as cited in Fullan 2001).

Q3 raised other issues about the behaviour of gifted children, particularly about interest and boredom in the classroom. Webb et al. (2007) report the myth that gifted children show the same level of maturity as exhibited by their intellectual advancement seemed to be evident here [Chapter 3]. With the drop in 'Curiosity' in the post-survey [Figure 4.2], Lithuanian teachers may have come to understand gifted pupils required greater challenge for an appropriate level of learning in the classroom.

That said, it is difficult for classroom teachers to meet the essential requirements of all pupils, especially when pupils' abilities range from special needs to giftedness. Fullan (2001) suggests teachers, when part of a professional learning community, benefit by sharing successes of classroom practice with other teachers and serve as resources for others. Professional collaboration demands purposeful, critical improvements in learning for all students and for all teachers. Unfortunately, due to personal time constraints and lack of a common planning time, Lithuanian teachers can find it difficult to collaborate on a regular basis. Informal collaboration occurs, i.e., in school hallways, in addition to sharing information at faculty meetings. However, Lithuanian teachers need to obtain release time from their administrators to observe classrooms where differentiation is being taught so they can learn how to

model such lessons. It is important that school administrators support teachers in their endeavours to differentiate classroom learning.

As advocated by Renzulli and Reis (1997) and Eyre (1997), identification can arise from assessment of classroom performance. Gifted pupils may exhibit leadership and/or advanced knowledge in particular subject areas that go beyond what is expected and beyond the knowledge of their peers. Moreover, Rogers (2002) suggests gifted children benefit in socio-emotional and intellectual ways with out-of-school provision as well. Thus, to encourage the pupil's pursuit of advanced knowledge or interest, Lithuanian teachers can connect pupils with a mentor or suggest an independent study in a particular area of student-interest. This research survey raised the issue concerning benefits of outside involvement as one of the most enriching activities a school could undertake.

In Q4 the category of 'Methods used to identify gifted children,' teachers could now identify additional methods to use in place of 'Observations,' i.e., 'Testing and Evaluation,' and 'Nomination Forms' involving other teachers, parents, peers, and students themselves.

Data from Q5 [Figure 4.5] aligned with statistics suggested in other countries and schools. Therefore, an identification of 20% to 30% gifted pupils might suggest that the expectations for the children had been set too low unless the school was a *gymnasium* or attracted a population of gifted pupils. In the responses suggesting that 40% of the pupils were gifted, as evidenced by the participant attendance sheet, three of the participating schools were *gymnasium* schools that enrolled high-ability pupils and another was a city school that attracted children from wealthy families.

Q7 raised the question as to whether being gifted in a class attracted stigma from teachers. It appeared that because of the extra work involved, a measurable proportion of teachers preferred that gifted children not be part of their classroom. One can speculate that this preference suggests the need to devise a teaching method that satisfies the broad range of abilities while addressing different levels and varying rates of learning without much additional work so teachers may be more inclined to try 'differentiation' (Tomlinson, 1999).

The interesting outcomes to Q7 were contradictory: a syllabus was wanted (23 or 30% in the pre-survey and 11 or 26% in the post-survey), yet teachers believed they were meeting the needs of gifted pupils in the classroom (58 or 76% in pre-survey and 35 or 81% in post-survey). It is obvious from the survey results that Lithuanian teachers continued to encourage gifted pupils to participate in Olympiads and contests, as they had done in previous years. However, teachers now recognised the need for a systematic way to deliver content to gifted children in the classroom. A syllabus would not only provide teachers with research-approved gifted educational material, but would give them confidence to know they were not teaching in isolation.

The responses to Q8 beg the question of how the new professionalism, which results from teacher empowerment and learning, requires teachers to keep modifying, adapting, and extending their work, as encouraged in the professional development.

Fullan (2001: 266) proposes:

The learning cannot stop, nor can it be ‘packaged’ into brief workshops and structured courses. Teachers of today and tomorrow are required to do much more learning on the job, or in parallel with it – where they can constantly test out, refine, and get feedback on the improvement they make.

It is important in the teaching profession for teachers to continually grow and experience self-directed change. One teacher stressed:

Teachers have to know more than their headmasters about gifted education because [they] are the ones in the classroom to work with [gifted children]. We [teachers] talked to our headmaster about the importance of attending this professional development programme because we have no [existing] system for identifying gifted children.

(Interview. Teacher J. 29 January 2003)

With input and motivation from teachers, there was a potential for a grassroots reform:

Administrators support teachers when there is pressure [on them to do so]. [It is only then that] the Department of Education will do things to bring about change for gifted education.

(Interview. Teacher D. 30 January 2003)

These comments during the teacher interviews indicate the importance of professional training for teachers. Hargreaves and Fullan (1998: 48) state that it is ‘impossible to

accomplish the deep purposes of student learning unless teachers are continuous learners themselves.’ Teacher learning is connected to teacher certainty. Ashton and Webb (1986, as cited in Fullan 2001) observe that teacher threats to self-esteem and uncertainty, i.e., a low sense of efficacy, are recurring themes in teaching. Such considerations support the case that teacher training in gifted education be incorporated into pre-service programmes.

There are a number of limitations to this study that are discussed more fully in Chapter 6 [Section 6.3]. The cohort represented 89 (97%) female and 4 (3%) male, with 31 (95%) of participants from non-*gymnasium* schools. Worth noting at this time is the varying number of participants in the seminar: 93 attendees at the time of the administration of the pre-survey, and 43 at the time of the administration of the post-survey. It must be noted that 76 of 93 completed the pre-survey, and all 43 participants who stayed until the end of the final lecture completed the post-survey. The pre-training survey contained more responses than post-survey data because a number of Lithuanian teachers left after the presentation of teacher credit certificates by Kaunas Technological University. Thus, care must be taken when making comparisons between two pools of responses as data may be skewed. Yin (1984; 1989; 1993 and 1994) concludes that the goal of a study establish the parameters, which needs to be applied to all parts of the research. Thus, even one case could be considered acceptable, providing it met with established goals. Ideally, it would benefit every teacher of the gifted in Lithuania to participate in a professional development programme of gifted education, although such participation obviously is impractical.

4.8 Professional Development Study Implications for Practice

Because flexibility is important when identifying needs of a situation, and when recognising limitations to the evidence (Hammersley & Atkinson, 1983, as cited in Cohen et al., 2000), here it was crucial that the teachers’ voices be heard. Important to educational reform in Lithuania, Frankes et al. (1998, as cited in Dana & Yendol-Silva, 2003: ix) find that although slow to develop, the role of ‘teacher as inquirer’ is critical to reforming the field of teacher education. Teachers are those who provide insight into transforming the classroom, and it is their voices that contribute to the knowledge generated about teaching and learning (Frankes et al., 1998, as cited in

Dana & Yendol-Silva, 2003: ix). The voices of the professional development teachers indicated their insight and understanding of giftedness at this point in Lithuania's cultural history. Interestingly, Lithuanian teachers indicated a low prevalence of Webb's and Winner's mythologies of giftedness in their post-survey responses.

Nevertheless, there was a challenge to build awareness of giftedness in Lithuania so that teachers could create classes and curricula for gifted pupils that are as equitable and appropriate as those for general education. On a positive note, the majority of responses to the post-survey supported Van Tassel-Baska's (1993, as cited in Heller et al., 2000) six criteria for successful curriculum in gifted education [Chapter 3]. In particular, gifted learners have different learning requirements than typical learners, thus curriculum experiences must be carefully planned to address this need. It was not clear whether Lithuanian teachers who attended the professional development programme believed gifted learners were best served by accelerated approaches. It was also not clear if these teachers believed evaluation was a necessary part of curriculum planning and revision.

To agree upon the implementation of such policies, teachers, administrators, parents, and policy-leaders need to develop a continuum of services that can provide for gifted children both in and out of the classroom. Renzulli's Three-Ring Concept of Giftedness Model (1977) and Enrichment Triad Model (1977), the Schoolwide Enrichment Model (Renzulli & Reis, 1997) and Betts's Autonomous Learner Model (1991) all exemplify the range of provisions, from schoolwide enrichment and independent studies, to conducting discussions with small groups of gifted students. Maker's Discover Project (1982) employs a problem-solving matrix incorporating a continuum of five problem types for application within each of the intelligences. Talents Unlimited (Schlichter, 1986) is yet another model which features major components of productive thinking, communication, forecasting, decision-making, and planning. These models support classroom learning and skills of creative and critical thinking.

As an example of Lithuanian teachers putting their ideas into practice, the second study of this thesis [Chapter 5] examined the implementation of a gifted identification

process of teachers in a Basic School who attended the professional development at Kaunas Technological University.

Chapter 5

Second Study: Gifted Identification in a Lithuanian Basic School

5.1 Introduction

Chapter 5 presents the second stage of this doctoral research and addresses the second research question:

How did the teachers at a Lithuanian basic school who attended the professional development at Kaunas Technological University implement a gifted student identification process at their school?

Based upon analysis of the professional development pre- and post-surveys [Chapter 4], two themes emerged that warranted further study, and led to the case study investigation:

1. Change in Lithuanian teachers' perceptions of gifted children, and
2. The need for a systematic gifted student identification process.

The rationale for conducting a case study at a Lithuanian basic school (referred to as Case Study School) in the second stage of this research study was to provide data to capture the complexities of educational change (Yin, 1994) that impacted on the implementation of a gifted identification process in a school. Chapter 5 first presents a background of Case Study School. Appropriate methodologies for conducting case study research are then described, followed by issues of validity and research ethics. Fullan's Four-Stage of Educational Change (1982) - Initiation; Implementation; Continuation, and Outcome - serves as a framework to examine the effectiveness of the implementation of the gifted identification process at Case Study School. Evidence is presented of the researcher's findings from interviews, personal conversations, and classroom observations at the case study school. A discussion of the results and a brief follow-up offer further data gathered from four Kaunas regional schools to offset the limitations to the generalisability of a single case study. Finally, an overall analysis is made and conclusions are drawn using Fullan's model (1982).

5.2 Background of Case Study School

On 30 January 2003, following the professional development programme in gifted education at Kaunas Technological University, the researcher was invited to meet with the staff of a basic school to discuss the identification and education of gifted pupils. Many of the staff members already were familiar with the researcher's experience training teachers in Lithuania through APPLE [Chapter 1] and seven teachers received the professional development training described in Chapter 4.

Consequently, it could be argued at the outset that the researcher manipulated the particular social world under investigation by providing professional development to the participants of the study. However, this situation is not necessarily negative. It is difficult to measure something without interacting with it and, thereby, influencing or imposing change (Hammersley & Atkinson, 1983, as cited in Cohen et al., 2000). The researcher takes the position of Hammersley and Atkinson that research must aim to understand any changes imposed on a system whilst the system is studied.

Built in 1992, Case Study School was originally a 'basic school' in Lithuania for Grades 1- 10; a kindergarten class was added a few years later. Case Study School was organised by parents of 'bright' children who were able to help finance their children's education. The school enrolled approximately 1,000 pupils of ages 6 - 16. Interestingly, the chairman of Case Study School was a member of the Lithuanian Parliament, and served on the Board for Repatriation, which worked to return homes to displaced Lithuanians after Russian occupation. Case Study School was located in Kaunas, the second largest city in Lithuania, on land owned by the municipality. Because there were no school buses, teachers and students walked to school, arrived by car, or were transported by a micro or city bus. Many students chose to attend this particular school because they were attracted to the school's low teacher-pupil ratio (15:1) and to the school's previous arts and drama programmes.

Since the 1990s, politics intervened at Case Study School. In 2001, declining enrolment transformed Case Study School from a basic school (K-10) to a middle school (K-8) of 44 teachers and 420 pupils: Grades K - 6 were located in one building, and Grades 7 - 8 in another. Although parents of the original students were no longer involved in the school because their children graduated, Case Study School

maintained parental support to purchase materials and to organise fieldtrips for students and teachers to Germany and Sweden (Personal Conversation. Teacher D. 12 August 2002). In 2002, a waning population forced Case Study School to downsize once more and the Department of Education designated it as a Primary - Grade 4 School; thus, the school could no longer operate as a basic or middle school. The headmaster, also the President of the Basic School Association of Schools in Lithuania, was dismissed because of 'a school inspection issue.' Although a headmaster's assignment was normally a five-year position, a change in the position of Case Study School's headmaster occurred.

The parents of students at Case Study School held high expectations for the school and its teachers and resisted the government's directive to close the school. Because parents were actively involved in financing their children's education, the parents sought more control in running the school. It was perceived that because effective communication was lacking between the headmaster and parents, the headmaster did not receive support for a position change to a Primary-Grade 4 school. This was seen as the main reason that he was terminated from his job (Interview. Teacher D. 7 July 2007). By June 2004, Case Study School faced the risk of being closed by the Minister of Education due to its low enrolment. Although reflective of the country's decrease in population, low enrolment was a common threat to many Lithuanian schools, especially small country schools in rural areas.

Subsequent change in personnel at Case Study School affected the implementation of the gifted identification process. With the change in administration, the school's gifted identification screening committee lost one of its most supportive and knowledgeable members. The school's environment was now unstable. Case Study School's screening committee could not continue its mission to implement the gifted identification process. All systematic work in identifying gifted children came to a halt in January 2004, approximately one year after the inception of the initiative (Interview. Case Study School Psychologist. 23 February 2005) [Appendix J]. An atmosphere of vulnerability pervaded the school environment until July 2008 when Case Study School received official notification of its termination (Telephone Conversation. Teacher D. 29 July 2008).

5.3 Case Study Methodologies

Although each case is in some respect unique, it is also a single example of a broader class of things.

(Denscombe, 1998: 33).

Case study, the research strategy used in this study, allowed the researcher to use various sources of collecting data and mixed methods, mainly qualitative. Qualitative research looks for meaning as opposed to isolation of truth as a goal (Burns, 1990). It is concerned with social facts that are devoid of subjective perceptions or intentions and that are not divorced from particular social historical contexts (Ary et al., 1990). Case study was an appropriate methodology for this research because it was concerned with reporting the processes of change in perceptions of giftedness among Lithuanian teachers in addition to the facilitation and implementation of a gifted identification procedure at Case Study School. Processes, rather than consequences, offer an organic wholeness rather than independent variables and exemplify meanings rather than behavioural statistics (Eisner, 1979, as cited in Burns, 1990).

The extent to which the findings from a case study school can be generalised to other circumstances depends upon similarities of the study to other schools. Burns (1990) stresses that lack of comparability and translatable data reduces the usefulness of a case study. Despite popular support for case studies, when inappropriate generalisations are made, real value can be lost from over-simplification (Bell, 1993), or if a small number of cases is examined for bias of findings without establishing reliability. Although case studies can be dismissed as an exploratory tool, some researchers continue to use them successfully to analyse real-life situations (Yin, 1994).

Case Study School successfully implemented the gifted identification process during the first year following the professional development programme, but it was unable to continue the systematic process of identifying gifted pupils because of governmental intervention. Unlike random sample surveys, case studies do not claim to represent an entire population, and findings from this study are limited. Any generalisations of results must be cautiously examined when offering insight into a gifted identification process for other basic schools in Lithuania or those of the former Soviet Republic.

Although the research at Case Study School examined a single instance of ‘unique interest’ (Anderson, 1998), it was hoped that the challenge of implementing the gifted identification process could provide important insights for other schools in Lithuania that also experienced a declining enrolment during the country’s educational reform.

To conduct a plausible study, it is important to substantiate and strengthen the validity of data through ‘triangulation.’ Triangulation is a multi-method approach of data collection for validating and clarifying findings from different perspectives to understand the topic more fully (Bell, 1987; and Hopkins, 2002). Triangulation employs empirical inquiry and investigates contemporary phenomenon within a real-life context wherein multiple sources of evidence are used, especially when boundaries between the phenomenon and context are not clearly evident (Yin, 1984; Anderson, 1998; Hammersley & Atkinson, 1983, as cited in Cohen, et al., 2000). This approach enables comparison of the data through a collaboration of the findings, or questioning of the data, so the researcher can pursue and validate a line of inquiry (Bell, 1993; and Hitchcock, 1995).

Denzin (1978) classifies triangulation into distinctive categories of data source (people, time, and places), method (observation, interview, and document), by researcher, and theory. In this research study, triangulation was used to analyse the implementation of the gifted identification process through representation of various viewpoints: administrators, teachers, the school psychologist, the interpreter, screening committee members, gifted pupils, and parents of gifted pupils at Case Study School.

Because there is more than one type of case study, it was important for the researcher to determine which type the study would follow. Jensen and Rodgers (2001: 237-239) offer definitions for five distinctive types of case study:

1. Snapshot case studies: detailed, objective study of one research entity at one point in time;
2. Longitudinal case studies: quantitative and/or qualitative study of one research entity at multiple points in time;
3. Pre-post case studies: study of one research entity at points in time that is separated by a critical event, which would be expected to impact case observations significantly;

4. Patchwork case studies: multiple case studies of the same research entity, using snapshot, longitudinal, and/or pre-post designs which is intended to provide a holistic view of the dynamics of the research subject, and
5. Comparative case studies: multiple case studies of multiple research entities for the purpose of cross-unit comparison using both qualitative and quantitative comparisons are generally made.

The researcher decided to conduct a pre-post case study. The first stage of the research study was to deliver professional development in gifted education to Lithuanian teachers at Kaunas Technological University in Lithuania in January 2003. As part of the professional development, Lithuanian teachers created a definition for 'giftedness' and developed a gifted student identification process to implement at their school. The implementation of the gifted identification process served as what Jensen and Rodgers (2001) refer to as the 'critical event.' The second stage of the study was for the researcher to select a case study school and observe the gifted identification implementation process. The researcher chose a school, but returned to Lithuania in January 2005 to observe the implementation process. Because Lithuania was experiencing educational reform in an unstable environment, Case Study School teachers did not begin to implement the identification process until fall 2003. Therefore, it was reasonable for the researcher to wait a year to make arrangements before returning to observe at Case Study School.

It can be argued that case study is a sound method for developing specific knowledge about concepts of giftedness (Foster, 1986). It was immediately recognised that before Lithuanian teachers could define 'giftedness' and implement a gifted identification process, they were in need of professional development in gifted education. Gilovich (1991) claims people make bias-ridden judgments and find patterns in random data to see what they want to see. Unlike positivistic social psychology, which ignores or presumes its subjects' interpretations of situations, case study as an ethogenic social psychology concentrates upon ways in which people construe their social world (Hammersley & Atkinson, 1983, as cited in Cohen et al., 2000). Because the social world needs to be studied in its natural state (Hammersley & Atkinson, 1983, as cited in Cohen et. al., 2000), in probing accounts of their actions by a screening committee, Lithuanian teachers in Case Study School developed an understanding of how to implement the gifted identification process and provide for gifted pupils without intervention by the researcher.

5.4 Case Study Data Gathering

In September 2004, the researcher sent a letter to the headmaster of Case Study School to request permission to conduct research during the week of 21-26 February 2005. The researcher proposed to employ various methods for gathering data: interview, personal conversation, audio and videotaping, journaling, reading of documents, classroom observation, and questionnaire.

‘Interview,’ a main method to gather data for this study, is a conversation during which the interviewer seeks purposeful responses from the interviewee, while looking for breadth versus depth (Gillham, 2000). Drever (1997) reports on two types of interviews that were both utilised in this study: formal and semi-structured. Formal interviews permit the interviewer to determine and direct the course of action. This type of interview allows the interviewer to read questions out loud, whilst adopting a conversational style. Formal interviews were conducted at Case Study School with the primary English teacher, mathematics teacher, science teacher, secondary English teacher, and school psychologist.

Questions that appear logical to an interviewee encourage ease of response. Effective questions can indicate associations but must not show cause and effect (Anderson et al., 1994). The researcher asked individuals at Case Study School to explain their role in the implementation of the gifted identification process and/or to reflect on the provisions they made for gifted pupils once these children were identified. Thus, when opinions were offered during the interviews, individuals were asked to cite evidence to support their view. When asked to consider why an alternative theory might be true, belief-perseverance effects can be reduced or eliminated (Anderson & Sechler, 1986, as cited in Brehm et al., 1999).

A second type of interview, the ‘semi-structured interview,’ was also conducted at Case Study School for this study. A semi-structured interview is a method of research used in social sciences. Although the researcher asks prepared questions, an informal atmosphere allows for additional questions to be asked in reaction to the interviewee’s responses. In semi-structured interviews, the researcher gathers factual information about people’s situations by collecting statements of their opinions to reflect their

experiences, motivations and reasoning; the responses of the interviewee can determine the direction of the interview (Drever, 1997).

Semi-structured interviews were conducted with gifted pupils in Grades 6 and 8 in addition to an interview with a *gymnasium* student, and a small group of teachers who attended the professional development, including some from Case Study School. The researcher initiated these interviews by asking individuals to explain what they had experienced during the implementation process and then followed up by listening and asking questions. The researcher asked the following questions during the semi-structured interview with the Case Study School Teacher D. (23 February 2005):

1. Has your concept of giftedness changed [after the professional development programme]?
2. Did the professional development programme help you to teach gifted pupils in your classroom?
3. How do you meet the needs of gifted pupils in your classroom?
4. What characteristics are needed for a teacher of gifted pupils?
5. Tell me about the case study school implementation of the gifted identification process.
6. Did anyone from the case study school screening committee communicate to the parents or children who were screened but did not qualify as gifted?
7. As a teacher of gifted pupils, what are your needs for the classroom?
8. Explain how you differentiate the curriculum for gifted pupils.
9. Is there anything else you would like to say?

Because interviews take time and skill, Drever (1997) suggests group interviews as a method to gather data by talking with several people at once using prompts for clarifying, summarising, and checking for additional information. The group interview proved to be an effective way for the researcher to obtain information from the faculty, and from gifted students, and the teachers who attended the professional development programme and now worked with gifted pupils. Because English was a foreign language to all interviewees in this study, some students and teachers preferred to be interviewed in small groups and supported one another in their communication skills. Although a structured interview was initially planned for Case

Study School gifted pupils, a semi-structured group interview was conducted in response to students bringing projects to share with the researcher.

The researcher chose ‘personal conversation’ as a second method to gather data for this study. The following list details conversations held with the researcher: Vaiva Vebraite, Educational Advisor to the President and co-founder of APPLE (9 October 2004); Antanas Bagdonas, the Head of the Education Department in Kaunas (8 February 2003); Arunas Pliksyns, the Director of the Department of General Education (22 February 2005 and 25 February 2005); Case Study School headmaster (22 February 2005); Kaunas Technological University Associate Professor Brone Narkeviciene (14 August 2002 and 29 January 2003); Kaunas Technological University psychologist/researcher (3 February 2003), and Kaunas regional school teachers [see References]. A telephone conversation occurred with Vaiva Vebraite to discuss Lithuania’s role in UNESCO and Education for All (EFA), which would directly impact gifted children (Personal Conversation. Vebraite. 5 February 2003). Telephone conversations occurred at the end of the research with the case study school English teacher, who was also a screening committee member, to follow up on the implementation of the gifted identification process (Personal Conversation. Teacher D. 7 July 2007 and 29/07/08).

A fourth method of gathering data was ‘audio and videotaping.’ Taped interviews were carried out with Teacher D. and a group of teachers who were involved in the screening committee (mathematics, science, and English teachers), a small group of gifted pupils from Grade 8, and at a faculty meeting at Case Study School. A total of eight audio taped interviews were conducted with the case study school headmaster, school psychologist, Teacher D., and a small group of teachers in addition to Arunas Pliksyns, Director of General Education in Vilnius.

Gillham (2000) suggests that audio and videotape recordings are a good method to guarantee that active listening occurs. The selection of audio and videotaping served as a triangulation that allowed the researcher to re-examine the information multiple times to ensure for clarity of understanding. The researcher obtained verbal and/or written permission to tape record participants using a four-inch audio tape player. A camcorder was set on a tripod to videotape classroom observations. Verbal

permission was granted for photographs and informal interviews on videotape. Additionally, written permission was obtained from all participants for the photographing and videotaping of the professional development sessions. Some interviewees were self-conscious and unfamiliar with being audio and/or videotaped; therefore, at times, their responses were inaudible, which impacted the amount of information gathered. The full set of audio files of the interviews has been uploaded on to the web, and can be retrieved at:

<https://cid-849f121caf9c4ddd.skydrive.live.com/self.aspx/PhD%20Sound%20Files>. In most cases, the researcher scripted the dialogues in a journal in addition to both audio and videotaping the interviews and classroom observations.

‘Journaling’ is an effective method of record-keeping that enables investigators to take notes about significant features (Hammersley & Atkinson, 1983, as cited in Cohen et al., 2000). Journaling was selected as a supplemental method of gathering data, even though it was recognised that journaling, like taping, can be highly demanding of the researcher’s time, effort and resources, not to mention the susceptibility to observer-bias (Simpson & Tuson, 1995). Journaling, unlike audio and videotaping, was a familiar, thus comfortable, method of recording information for the Lithuanian interviewees.

The researcher also employed ‘document-reading’ to gather data at Case Study School. The school psychologist translated random copies of the nomination forms that represented responses from teachers, pupils, and parents. The psychologist also shared a matrix, which was created by the screening committee to analyse information on each nominee [Appendix R].

Another method employed for gathering data was ‘classroom observation.’ There are many ways of recording what occurs in a classroom. Russell (1992, as cited in Gitlin et al., 1992) argues that because practitioner research has its own struggle with silence and voice, reflections and questions become powerful catalysts. A decision must be made about what to observe so that the investigators are able to discern ongoing behaviour (Bell, 1993). Therefore, it was important for the researcher decide how to conduct observations during the week’s visitation to Case Study School, the week of 21 February 2005. The researcher conducted classroom observations in Sixth Grade

English classes, Sixth Grade environmental science class, Eighth Grade math class, and Eighth Grade English classes. These observations were triangulated with audio and/or videotaping, journaling, and conversations with classroom teachers and the interpreter.

A final method employed to gather data in this study was the ‘questionnaire.’ A questionnaire comprised of 20 questions was created to examine the implementation of the gifted identification process in schools [Appendix N]. The questions were:

1. How are gifted pupils identified in your school? What specific areas of abilities are addressed?
2. On a scale of 0 to 5 (0 is low, 5 is high), how effective is your model [process] of gifted identification?
3. What are your most effective tools and strategies for identifying gifted pupils?
4. How is the identification process monitored and evaluated?
5. What percentage of pupils has been identified as gifted in your school?
6. What is the gender and age of identified pupils?
7. What are the challenges to identification of gifted pupils?
8. What are some of the problems with the Gifted Identification Model [process]?
9. What is your concept of giftedness?
10. What are the qualities of a gifted learner?
11. Did your concept of giftedness change following the development of the model of gifted identification? If so, how?
12. What are the requirements of gifted pupils in your school?
13. What perceptions do gifted pupils have of the identification process? Are they involved in the process?
14. What is the perception of parents of gifted pupils who have been identified by the model? Are they involved in the process?
15. What is the perception of parents of pupils who have not been identified by the process even though their child may have experienced the identification process?
16. What is the perception of students who have not been identified by the process even though they have experienced the identification process?
17. As a teacher, what do you and/or other teachers do to meet the academic and social needs of gifted pupils in your school?
18. On a scale of 0 to 5 (0 being low, 5 is high), how effective is your teaching for meeting the needs of gifted pupils in your class?
19. What assistance do you and other teachers need to effectively meet the needs of gifted pupils in your school?
20. What comments or suggestions would you like to add or ask?

The hope was that this questionnaire would obtain information quickly and inexpensively. Because questionnaires lack interview bias, they can provide a straight-forward analysis and standardisation of the questions. The importance of

asking both open- and close-ended questions was to override the weakness of seeking answers through a particular questioning technique. Questionnaires allow the respondents to answer at their own pace, and there is less pressure for an immediate response, thus providing the researcher with more suggestive data (Gillham, 2002). The questionnaire served as a good tool in this study to recognise and obtain information from parents of gifted children and to recognise their role in the research process.

A limitation in the use of questionnaires is that misunderstandings or literacy problems can occur. For example, instead of writing the age of his gifted child on the questionnaire, one parent misinterpreted the question and wrote his own age (38). The case study school psychologist commented that this phenomenon occurred when parents completed nomination forms as well, indicating their unfamiliarity with questionnaires in general. Gillham (2002) stresses some responses to the questionnaires are not able to be corrected and, thus, misunderstandings can affect the outcome of the data and make it impossible to check the authenticity of the respondents' answers. Thus, the data for this study offered a triangulated approach of employing various methods to validate a broader understanding of the implementation process at Case Study School.

In April 2003, copies of the questionnaire were translated into Lithuanian and mailed to all schools that participated in the professional development programme to find out how the gifted identification process was being implemented. A self-addressed stamped envelope was enclosed to encourage a return of the questionnaire. The deadline for completing and returning the questionnaire to the researcher was June 2003. Assistance was requested of Kaunas Technological University to, also, fax the questionnaire to each of the schools. The questionnaire focused upon three main themes which arose from the professional development study:

1. Theme number one was the 'Need for systematic identification of gifted pupils.' Eight questions focused on the identification process. Questions 1 through 3 asked for details to explain the identification selection of gifted pupils. Questions 4 through 8 asked for reflection and evaluation of the implementation of the identification process.

2. Theme number two was the ‘Teachers’ perceptions of gifted children.’ Seven questions focused on the perceptions of giftedness. Questions 9 through 11 asked for a definition of giftedness and whether the teacher’s perception had changed since the identification process had been implemented. Question 12 asked what was required to teach gifted pupils in the school. Questions 13 through 15 focused upon the perceptions of gifted pupils, parents, and those who were not identified in the implementation process.
3. Theme number three was the ‘Need for professional teacher development in gifted education.’ Five questions targeted meeting the needs of gifted pupils in school. Question 16 asked how to teach gifted pupils in the classroom. As a follow-up, Question 17 asked the respondents to rate the implementation process. Questions 18 through 20 asked what was needed to assist teachers in terms of classroom.

In September 2004, the questionnaire was sent to Case Study School headmaster to prepare teachers for the researcher’s upcoming visit during of the week of 21 February 2005 to interview and conduct classroom observations [Appendix N]. The questionnaire focused on the implementation process at the school and its impact on teaching gifted pupils at Case Study School; for example, what was working well and what needed to be changed. Apparently, the questionnaire did not leave the headmaster’s desk because the teachers had no knowledge of it when the researcher visited the case study school.

The set of 20 questions was, therefore, used as a prompt for formal interviews with teachers at Case Study School during the observation week in February. In addition, the researcher create a shorter version to be sent to the families of identified gifted, pupils at Case Study School, a version which was comprised of selected specific questions (#1, 9, 10, and 15) from the original questionnaire. These questions focused on the definition and perception of giftedness. This questionnaire was to be completed by both parents and children and returned during the observation week.

To obtain information beyond that of Case Study School, a different subset of the original questionnaire also was sent to the four schools who had reported information

on the implementation of their gifted identification process. Information from these four schools was used to compare to the findings at Case Study School [Section 5.3].

Specific responses to the 20 questions have been incorporated into the following case study description where appropriate. For example, Question 1 asked ‘How are gifted pupils identified in your school? What specific areas of ability are addressed?’ Case Study School’s responses are reported in Tables 5.1 - 5.3. Table 5.3 addressed the comparison data from four additional Kaunas regional schools. Because of the outcome of Case Study School closing down, the effectiveness of the implementation of the gifted identification in Question 2 cannot be answered apart from the discussion [Section 5.10]. Information was reported on Question 3 in Table 5.3 and in the school psychologist’s report. Answers to Questions 4 and 6 were reported by the case study school psychologist report [Section 5.7 and Table 5.3]. Case Study School teachers, who said that they would identify using the process, again, but that they would fine-tune it to hand out less nomination forms. In Question 9, the case study school screening committee modified the professional development programme’s definition of ‘giftedness’ by changing the language to specifically fit their identification process [Section 5.7].

Although some schools met the deadline for the questionnaire and emailed or sent their report to the researcher, the overall response was disheartening. Some schools did not respond until a year later or did not respond at all. It can be assumed that the schools experienced difficulties in implementing the identification process or that the process took longer than anticipated. It is not known if Lithuanian teachers who attended the professional development programme were too busy or lost interest in the implementation of the gifted identification process.

5.5 Issues of Validity

Overall, in this research study, the trustworthiness of data was ensured through explicit considerations of credibility, dependability, and transferability. These concepts better serve qualitative assumptions than do ideas of validity, reliability and generalisability (Johnson, 1999). Generalisability requires making connections to unstudied parts of the original case study (Maxwell, 1992), and distinguishing between ‘what is’ to ‘what could be’ (Schofield, 1990, as cited in Eisner & Peshkin,

1990). In some ways, all data can be qualitative because it can refer to the essences of people, objects, and situations (Berg, 1989). Wolcott (1990, as cited in LeCompte et al., 1992) suggests watching and examining data collection activities, such as observation, interviews, or documents as in close proximity as possible to the local setting for a given period of time.

The researcher's observation week to examine the implementation of the gifted identification process at Case Study School occurred two years after the professional development programme in gifted education (February 2003 and February 2005). Fullan stresses the implementation period can take two to three years to put an idea or reform into practice (Polyzoi et. al, 2003). Polyzoi et al. (2003) argue the path of educational reform of Eastern European countries is not linear as suggested by Fullan's Model (1982), which is reflective of the West [Chapter 2]. Therefore, it was not unusual to find that Case Study School needed additional time to implement the gifted identification process and encountered obstacles that impacted the implementation.

This time period was not unlike the results from four other schools in the Kaunas region that also implemented the process [Section 5.9]. However, this period allowed for what Warner (1991) describes as 'natural validity,' events and settings which remain unchanged by the researcher's presence or behaviour. Miles and Huberman (1994: 3) state 'any method that works will produce clear and credible meaning from a set of qualitative data; it is not these particular methods that must be applied scrupulously, but that the creation, testing, and revision of simple, practical, and effective analysis methods remain the highest priority for qualitative researchers.'

Qualitative researchers have their own set of rules, whilst practitioner researchers study the setting to develop inquiry criteria (Anderson, et al., 1994). The results produce and disseminate knowledge in traditional ways; for example, dissertations or the use of journals. According to Anderson (1998), the best results are transformative, which then link to an action intended to change educational and/or institutional practices. In this research study, it was hoped that Case Study School teachers would transform knowledge gained at the professional development programme on gifted identification through the implementation of the process.

Because outcome validity relies upon the accuracy of process validity, triangulation is required. Thus, as recommended by Anderson (1998), triangulation was employed that was inclusive of multiple perspectives, observation, and interviews and not limited to one source of data.

Strong cases of interpretive validity are illustrated throughout this study in first-hand witness accounts by Lithuanian teachers and Case Study School gifted pupils, observed behaviour and activities in addition to informal settings for interactions with the case study school psychologist and interpreter. It is these particular kinds of examples which build a case for strong interpretive validity (Becker, 1970; Bogdan & Taylor, 1975; and Sieber, 1976).

Because of the need to control for all possibilities that threaten credibility or trustworthiness of the study, validity is a main concern of education research for any researcher. In addition to threats to credibility are threats of 'transferability, dependability, and confirmability' (Lincoln & Guba, 1985). The general approach to external validity in practitioner research is to determine whether the findings are transferable and can be generalised.

Mention must be made of the Hawthorne Effect. It is possible that Case Study School teachers responded and behaved differently following the professional development programme because they knew they were being studied within the context of a case study school and also because they received attention from the community. Even though these teachers faced constraints and limitations resulting from their concerns about job loss due to the school closing, they still continued to implement the gifted identification process and find appropriate ways of teaching gifted pupils. Selection of their school as a case study school for international research may have encouraged teachers in their work and, subsequently, in their commitment to provide an equitable education for newly recognised gifted pupils.

In this study, rich descriptions were made of the gifted identification protocols most appropriate at different phases of the implementation process. At the secondary level (Grade 8), performance tasks were observed in classrooms and individual and/or small group interviews were employed to identify a broader range of giftedness. At

the middle level (Grade 6), identification procedures were better served with classroom observations, and with interviews of parent and small groups of gifted students to gather information about the gifted identification process. During a taped interview of 12 gifted children from Grades 4 - 8, one young boy joined the class to be with his older brother because he believed that he, too, was gifted, and wanted to be included. His mother said:

When I heard that my child would be participating in an interview I felt that he would demonstrate his giftedness though writing. Then I wondered about including my other son, who wanted to participate, to reveal his leadership ability from the Olympiads competition.

(Personal Conversation. Parent of Gifted Child. 23 February 2005).

This rich data collection had some secondary benefits. The researcher documented the first interview of the case study school psychologist by journaling and audio taping to capture the depth, in detail, of the identification process at Case Study School. All of the data, including questionnaires and nomination forms placed in the psychologist's office at Case Study School were copied and located in the school library's file cabinet for teachers to access. The drama teacher used some of this information in the thesis for her Master's degree. Because the psychologist was well informed and kept scrupulous records, she led the screening committee at Case Study School and, provided what Maxwell (1992) termed a 'strong interpretive validity' to the study.

5.6 Research Ethics

Ethical approvals from both Oxford Brookes University and Kaunas Technological University were obtained [Appendix K] for this study. Oxford Brookes University and Kaunas Technological University own the rights to the photography, taping and written data [Appendix L]. Teachers were invited to participate in a non-structured videotaped interview after the professional development session. Prior written consent was obtained for participants of all structured interviews, inclusive of gifted pupils, parents, and staff. Permission was received from the headmaster for the research study to be conducted at Case Study School [Appendix M]. Confidentiality and anonymity were maintained for the teacher participants of the professional development in addition to Case Study School faculty members, pupils, and parents.

Verbal permission was obtained to conduct all interviews, including a group interview of the mathematics, science, and two English teachers from Case Study School. Interviews were approximately 30 minutes to an hour each. A faculty discussion of the researcher's response to questions about educating gifted children was recorded. The assistant headmaster asked about the differences in social maturity (psychological needs) of gifted children as compared to those not labelled gifted (Case Study School faculty discussion, 30 January 2003). It could be inferred that the assistant headmaster was concerned for the 'whole child,' and not solely the gifted behaviour of a child.

Additionally, personal conversations were conducted by the researcher relating to the gifted identification process: Educational Assistant to the President of Lithuania, Associate Professor at Kaunas Technological University, psychologist/researcher at Kaunas Technological University, Educational Advisor to the President of Lithuania, and Case Study School's assistant headmaster and English teacher.

It was critical that approval be obtained to conduct both stages of this research:

1. Written letter to the case study school's headmaster to seek permission to conduct the research at Case Study School and to interview teachers;
2. Written permission of the staff, parents and gifted pupils to participate in the study;
3. Permission from school headmasters for classroom release time of Lithuanian teachers in the Kaunas region to participate in the professional development programme at Kaunas Technological University. Approval was granted in February (2003) for participants to receive professional teaching qualification points towards salary advancement, and
4. Verbal permission from the Minister of Education in Kaunas for Kaunas regional teachers to implement the gifted student identification process in their school.

Despite obtaining the necessary approvals, the researcher also had an invested interest in the success of Lithuania's educational change. Because of the intimacy of the participant-observer relationship within the case study school setting, the researcher's presence did impact the subjects in the study. It was important, therefore, for the

researcher to actively engage in critical self-reflection to offset any bias. This process was attempted by monitoring the situation and trying to control for bias by conferring with other professionals and seeking opportunities to exemplify or disconfirm expectations to achieve defensible results. To serve as a basis for trust, a promise of anonymity was made to all participants at Case Study School.

5.7 Case Study Description

To better understand the new role of teachers and schools as change agents, Michael Fullan's Model of Educational Change (1982) was used as a framework to examine teacher empowerment from research findings of those Lithuanian teachers who were involved in creating and implementing a gifted identification process. This second stage of this study was analysed through Fullan's model.

1. Initiation Stage: Professional development programme and supportive administration and school environment to implement the gifted identification process at Case Study School;
2. Implementation Stage: Formation of a gifted identification screening committee and schoolwide initiative to implement the gifted identification process at Case Study School;
3. Continuation Stage: Case Study School teachers function as change agents and assume leadership for implementation of the gifted identification process, and
4. Outcome Stage: Case Study School teachers differentiate curriculum for gifted pupils and Lithuania's Director of General Education of Vilnius supported the development of a national gifted identification process.

The details of each of these stages are described in the following sections.

5.7.1 Fullan's Model: Initiation Stage

The first stage of Fullan's model is the initiation (mobilization or adoption) stage that leads up to and includes a decision to adopt or create change. After the professional development training at Kaunas Technological University, the researcher attended the basic school's faculty meeting (30 January 2003) to discuss enrichment programmes versus acceleration, as well as the psychological needs of the gifted. Both the

headmaster and assistant headmaster advocated the need for a systematic gifted identification process for Lithuania and volunteered their school as a case study school for the research study. In addition, seven teachers who participated in the professional development programme volunteered to be interviewed after their school's implementation of the gifted identification process. Thus, a high confidence factor existed with this particular basic school that contributed to the cultural appropriateness of the research design. Sincere interest and reliability of personnel were a prime criterion for selection of this basic school as the case study school for this research.

5.7.2 Fullan's Model: Implementation Stage

The second phase of Fullan's model is the implementation (initial use) stage. This stage attempts to put the idea or reform into practice. Here, Case Study School teachers served as change agents to apply knowledge from the professional development programme to develop the gifted identification process in their school. Case Study School initially embraced the definition of a gifted child from the professional development programme in 2003:

A gifted child or teenager has higher than average intellectual (general and/or special) abilities, is creative, and differs from his peers (having the same school environment) in performing tasks in an original and productive way.

After the professional development programme, teachers returned to their schools to begin work on organising the implementation of the gifted identification process. One of the first steps was to share the information from the seminar and discuss the concept of 'giftedness' at faculty meetings. Case Study School modified the definition of giftedness to one that was clearly operational rather than conceptual to reflect their particular needs:

A gifted pupil is one who was creative and excelled in one or more areas and received a teacher nomination (Case Study School, 2004).

Next, a screening committee was established at each school. The case study school screening committee was comprised of several members: the school psychologist,

assistant headmaster, a Sixth Grade English teacher, and two classroom teachers. Because of their previous knowledge of giftedness and creativity, the school psychologist and English teacher surfaced as leaders of the group. Members received a stipend of 400 litas (approximately 118 Euros) from the school for their work on the identification process. The English teacher used her allotment to purchase a classroom dictionary. This was the only acknowledgement of the additional responsibilities assumed by the committee members.

In the spring of 2004, a representative from the Kaunas Department of Education visited Case Study School to discuss and view materials teachers received from the professional development training to implement the gifted identification process. The representative met for three hours with Teacher D. and copied materials to prepare a report on giftedness for the city of Kaunas. This was the first of four additional meetings to discuss the gifted identification process at Case Study School (Interview. Teacher D. 21 February 2005).

In the autumn of that year, the case study school screening committee formally began the gifted identification process. The committee met to decide how to gather and compile information to systematically identify gifted pupils. The time frame to implement the identification process was not unlike other Kaunas regional schools that also had participated in the professional development programme.

Change can take longer to occur in Lithuania than in the West because of the need to mobilize people who were not encouraged to be active learners or to take risks to try out new ideas during the Soviet era. The case study school screening committee met several times during the first few months of the 2003 school year to discuss the implementation process of identifying gifted pupils. To qualify as gifted, it was required that pupils receive nominations in all four areas: teacher, parent, peer, and self. The nomination forms used were modelled after those created at the professional development programme [Appendix F]. The screening committee focused the identification process on Grades 4 – 8, with the intent that the identification process would extend to additional grade levels the following year. This decision received approval from both the headmaster and assistant headmaster of Case Study School.

The nomination forms were created and dispensed to teachers, parents, and pupils for nomination of possible gifted candidates. The case study school psychologist distributed information to teachers to explain giftedness in students. Teachers were given responsibility for the forms and asked to not leave them around in the classroom. Upon completion, the forms were to be returned to the school psychologist or to a screening committee member in two weeks. Because it is common practice for Lithuanian teachers to work more than one job, it was, seemingly, a hardship for many teachers to find time to do extra paper work to meet the completion deadline.

After the screening committee determined which pupils qualified as gifted, a lack of nominees in the field of English was noted. The English teacher had taken pupils on a national competition fieldtrip to Vilnius, and had not received the nomination forms. Upon her return, the English teacher showed great concern, and submitted her nomination forms to the screening committee even though the forms were late.

It was not until January 2004, two months after the original deadline for nomination forms, that the screening committee received all of the completed forms. Unfortunately, some teachers misunderstood information on the forms and did not take time to write additional comments (Interview. Case Study School Psychologist. 23 February 2005). It is arguable that when individuals process information, there is an element of human error that is less accurate than statistical data (Dawes, 1971; Goldberg, 1970; Meehl, 1965). Even though the first attempt of implementing a gifted identification process at Case Study School was confronted with problems, the screening committee still moved the process forward.

Rohrer (1995) found teachers' preconceived notions of giftedness could preclude children with certain personality traits from receiving consideration as nominees for gifted programmes, but teachers were able to recognise intellectual potential in those who did not fit the stereotype of high-achieving students. It can be inferred that teachers gave pupils all 10s (the highest mark) without writing explanations because Lithuanian teachers are paid by classes taught and receive no compensation for

preparation time or extra work. This situation illustrates the need for teacher-training in identifying gifted pupils, especially in the identification of the underserved population who may 'slip through the cracks' (i.e., underachievers).

Approximately 900 nomination forms were distributed by the screening committee to all teachers and to parents and students who requested them. It was overwhelming to cope with such a large number of forms; therefore, this part of the implementation process needed to become more manageable.

Pupils were asked to fill out the forms as a classroom lesson and to respond to the question: "Who can be creative?" Students completed forms for nominating classmates and for self-nomination. All of the parents and students completed and returned the forms to the school psychologist within a two-week period. Because of the large number of nominees, the case study school screening committee requested that teachers re-examine their lists and rethink their nominations. The school psychologist asked teachers to differentiate between bright children who studied and worked hard to earn all 10s and for between those who were truly gifted. However, without any additional information to accomplish this task, the results of the teacher nominations did not change.

It became the task of the screening committee to make the final decision about individual students in this large group of nominees. The psychologist was responsible for analysing the initial nomination forms that identified a talent pool of possible gifted candidates. She worked weekends, and reflected that the work would have been easier if she had had access to a computer (Interview. Case Study School Psychologist. 23 February 2005).

The assistant headmaster sent a letter to the families of all pupils who received a nomination. This letter, modelled after one received during the professional development programme, informed parents of the beginning stage of identifying gifted children at Case Study School. It informed parents that their child was being considered for the gifted identification but did not explain what was meant by 'gifted' nor did it offer any provisions that could be made if a pupil qualified. The screening

committee received responses both from parents who gave consent for their child to participate and from those who did not.

After receiving written parental consent for their child to be included in the identification process, the case study school screening committee initially selected 102 of the 166 pupils in Grades 4 - 8 (ages 10 - 14) as possible gifted candidates, which was perceived as a high number of candidates. Subsequently, the screening committee interviewed the possible gifted student candidates to examine their background for 'creativity' and performance in special areas. A matrix was then created to analyse and compare the candidates' background in 20 school-related subject areas [Appendix R].

Finally, 84 of the 102 candidates, (41 girls and 43 boys), met the case study school's gifted student identification requirement of receiving a nomination in all four categories [Table 5.1] along with the requirement of 'creative' (Interview. Case Study School Psychologist. 23 February 2005). This number represented 26% of the population at Case Study School. This number was believed to be high in comparison to reports submitted from four Kaunas regional schools [Table 5.3] and the post-survey results [Chapter 4, Figure 4.5]. After months of collecting, collating, and analysing nomination forms, the case study school screening committee informed parents of the final selection by letter. Additionally, the case study school psychologist handed out parental permission forms to pupils who qualified as 'gifted' to request permission for the children to 'participate.' No parent meeting was held to answer questions or to provide clarification. Some parents, however, called the school psychologist to ask: "What does it mean? Will it go on forever?" The psychologist returned phone calls, after school, to answer parent questions.

Given that the identified gifted pupils were to be taught in their same mixed-ability classes, what about those children who were not so identified? Did the nomination forms really help to identify gifted pupils or did some identifications 'fall through the cracks?' No one at the case study school was surprised to learn who was gifted. The nomination forms filled out by parents, peers, and pupils themselves actually came together to support the candidates. Because the process seemingly went well, no-one

communicated with the children who had received some nominations but were not identified as gifted. It was reported that:

No one felt overlooked. They realised and understood everything. There were no phone calls from angry or upset parents.

(Interview. Teacher D. 23 February 2005)

Nevertheless, one parent form commented on the role of parents in the identification process:

A gifted child is creative, motivated, and conscientious. He perceives situations quickly. He has abilities which allow him to do tasks easily, quickly, perfectly, and creatively, and perhaps, with more individuality. I think that the parents' role in the identification process could be biased.

Once more, the case study school screening committee did not know what provisions could be made for identified gifted pupils and discussed options with the headmaster. The headmaster offered a monetary incentive, six additional hours of pay, for teachers to work with gifted pupils. Once pupils were identified, teachers wanted to do more for them and worked daily during their own time, which was often after school and without extra compensation. For example, the Eighth Grade gifted pupils reported that even though their projects required extra work, the work was not hard to do. Children were motivated to do well by their teachers because they 'loved' their teachers. The pupils hoped the gifted identification label would offer more opportunities for them to participate in Internet projects so that they could make new 'e-pal' friends. Interestingly, only three of the twelve gifted pupils agreed with their identification of 'giftedness' (Interview. Gifted Pupils. 22 February 2005). One student suggested that, although his friends did not qualify as 'gifted,' they were just as smart as he was because they received the same high marks in class.

The identification process raised the issue of examining non-intellectual factors, such as creativity and individualism. A study by Herskovits and Gefferth (1992) found a gifted identification procedure in Budapest that, also, includes non-intellectual factors, i.e., positive personality traits, motivation, and interest as necessary in the actualisation of abilities, although these factors were not the sole predictors of giftedness. Case Study School found pupil interviews and non-intellectual factors helped to distinguish giftedness and, therefore, reduced the number of qualified candidates in the talent pool from 102 to 84. The case study school psychologist stated she wanted to give the Torrance Test of Creativity to all pupils in the future to

measure 'creativity' for the identification process (Interview. Case Study School Psychologist. 23 February 2005).

5.7.3 Fullan's Model: Continuation Stage

The third phase of Fullan's model is the Continuation Stage, which refers to whether change becomes an integral part of the system or disappears for lack of resources (financial and human). Here, the Continuation Stage describes the institutionalisation of teachers' work to extend and sustain the gifted identification process at Case Study School.

Even though Case Study School faced the risk of closing, strengths in the Continuation Stage revealed the emergence of teachers' support for systematic reform: the gifted identification process. Restructuring of educational change continued and was evidenced by differentiated lessons taught to gifted children. Davidson and Davidson (2004) stress that bright children pay a high intellectual price in a classroom where they are not taught at an appropriate and accelerated level. Therefore, upon completing of classroom work, many teachers assigned gifted students additional assignments that required 'differentiation' and more breadth and depth of content, rather than assigning 'busy' work (Tomlinson, 1999).

Case Study School teachers encouraged gifted pupils to be teaching assistants to help peers in the classroom or become the teacher of a class lesson (Interview. Teacher D. 23 February 2005). Teachers who worked with gifted pupils were interested in offering more challenging provisions and effective teaching strategies. Teachers shared their knowledge and experience of teaching gifted pupils with their colleagues at their school and at the Kaunas's Cultural and Administrative Department, *Kulturos ir Švietimo Departamento*. As a result from meetings of the representative from the Department of Education and Teacher D. of Case Study School, a support network was created called the 'Conception of Gifted Children, Development in Kaunas,' *Kauno Miesto Gabiu Vaiku Ugdyimo Konceptija*. The network involved Lithuanian teachers from eleven schools who had attended the professional development programme. Materials obtained from the professional development programme were used as a basis for implementing the gifted identification process in these eleven schools.

This collaboration can be seen as an example of what Fullan recommends as sharing of best teaching practices:

Something different is happening now. Many teachers are coming to Case Study School because they are interested in finding ways of teaching the gifted. If our teachers have to change jobs and leave for other schools because Case Study School is closing down, I am sure that they will take with them the knowledge of how to teach gifted pupils. We will always try!

(Interview. Teacher D. 21 February 2005)

During the observation week at Case Study School, the probability of the school's closing grew stronger. The researcher asked teachers whether they would go back to their former ways of 'teaching to the middle' would continue to identify gifted pupils and differentiate curriculum. Regardless of changing circumstance, Case Study School teachers responded they would like the gifted identification process to continue at their school. Many teachers appeared to regard 'change' as a matter of personal professional development, as supported by Fullan's change agency (2001).

Although teachers meet the needs of teaching gifted pupils in the classroom, they must learn how to do this on their own. Because of our country's educational reform, teaching is changing all the time and we must adapt on our own. Life as a teacher is not the same as it was ten years ago.

(Interview. Teacher D. 23 February 2005)

The issue of extra time involvement arose during a semi-formal interview with two teachers at Case Study School. These teachers expressed the need for additional materials to teach the gifted, such as computers and new books. They also voiced the need for 'time to teach gifted children separately' along with a special allocation of money. Other concerns also were brought up:

Teachers need training in gifted education at various levels of their career [undergraduate to graduate]. This training needs to vary to meet the different needs of teachers. It is important to provide this training in our teacher training qualification centres through in-service work, seminars, and college courses.

(Interview. Secondary English Teacher. 23 February 2005)

Even though one teacher advocated for a special gifted class or after-school class to teach gifted pupils, Teacher D. (Interview. 23 February 2005) confirmed, "There was no time given for doing the work of teaching the gifted." It was considered important

that teachers needed to be paid extra for these additional lessons and work. In addition to the need for some external incentive, it was thought that some teachers themselves might be gifted and, therefore, wanted to teach gifted children (Interview. Teacher D. 23/02/05).

5.7.4 Fullan's Model: Outcome Stage

The fourth and final phase of Fullan's model is the Outcome Stage. It describes the change in Lithuanian teachers' perception of giftedness following the implementation of the gifted identification process at Case Study School. The Outcome Stage was evidenced by the triangulation of interviews and classroom observations conducted during the second study.

Unfortunately, a lack of possible funding and programming options proved an insurmountable obstacle for Case Study School. Anticipation of the school closing, and the loss of a key member of the screening committee (the assistant headmaster who left for another job), created an unstable school environment. The implementation of the gifted identification process could no longer continue with the stability and security it once had; all systematic work of the gifted identification process came to a stop by January 2004.

Although there was no time for Case Study School teachers to teach the gifted during the regular school day, teacher made appropriate provisions for gifted pupils after school. Because teachers talked about differentiation during interviews, it was necessary to confirm these findings in classroom observations. Cohen and Manion (1989, as cited in Bell, 1987), argue that the accounts which emerge from participant observation are often subjective and for biased and lack quantifiable measures. Moreover, observation is a highly skilled activity which, one requires experience in the ability to notice significant events (Nisbet & Watt, 1980). Renzulli and Reis (2007) state that maximum payoff is achieved when teachers provided integrated work for students who exhibited superior performances, which would enable students to then pursue advanced interests to escalate their experience. The challenge here was that Lithuanian teachers were accustomed to following a prescribed curriculum; the concept of a differentiated curriculum was new to many of them. As Teacher D questioned (Interview. 23 February 2005):

Is the teacher of the gifted like a regular classroom teacher? Does the teacher teach everything in a curriculum? What particular subjects are taught? Are these subjects taught in a different way? In Lithuania, project work is done only with students in the upper grades.

In an Eighth Grade English classroom, 11 of the 16 pupils were identified as gifted. The Eighth Grade English teacher taught a lesson which integrated drama and language. Gifted pupils were asked to create a dialogue in front of the class to dramatise a telephone conversation with a friend about a recent holiday trip to England. They integrated information they had researched on the Internet and asked questions of their partners concerning the geography and weather of England. The lesson concluded with an authentic component of interviewing the researcher, in English, about living in England. This lesson served to illustrate differentiation and demonstrate authentic learning for real-life application as suggested by Renzulli [Chapter 3]. This served to incite one gifted Eighth grader to ask (Personal Conversation Student M. 05 February 2005):

Why is someone from England studying gifted children in Lithuania? Do we have a gifted organisation in Lithuania? Is there such a [thing as a] world gifted organisation? What is a gifted child?

The researcher observed that a sixth grade environmental science class was taught in English. This lesson offered an authentic outcome of encouraging pupils to participate in international project: the Baltic Sea Project. Rote learning, as evidenced during the Soviet era was replaced with a Renzulli-Triad Model problem-solving activity to actively engage learners. Despite such successes, problems were identified by Teacher D. (Interview. 23 February 2005):

It was very difficult for a teacher in the regular classroom to be able to integrate and differentiate the curriculum for every student all the time. Because students learn in different ways, some pupils would be writing, some would be translating and, yet, others would be working on the computer.

Although Lithuanian teachers found that differentiating the curriculum was a demanding task, they realised the opportunity it offered to transform themselves and their teaching practice.

5.8 Results

Case Study School teachers shared some of the initiatives, i.e., national and international projects that were taking place now that gifted pupils had been identified at their school:

- The mathematics and English teachers partnered with a school in Denmark for an Internet 'e-pals' project of gifted children writing in English.
- The 6th Grade English teacher's class participated in the Baltic Sea Project in 2003, an international environmental project, at which her students excelled.
- The mathematics teacher published a book of the integrated mathematics and computer technology lessons he created to teach gifted pupils. His gifted pupils won several of the Olympiad competitions as well over the course of a year (Interview. Mathematics Teacher. 23 February 2005).
- Gifted pupils of Case Study School's two English classes competed and won national recognition in a foreign language translation competition, 'Your View.' Nine pupils continued onto the second level, five pupils participated in the finals, and two pupils won diplomas (Interview. Teacher D. 21 February 2005).
- Gifted pupils won first prize in a contest for original books of illustrated stories written in English. Their books were displayed in the Town Hall (Interview. Case Study School English Teacher. 23 February 2005).
- The English teacher revealed that her gifted students differed from their peers in the complexity of their thinking. One boy, in particular, always wanted to explain everything in great detail (Interview. Secondary English Teacher. 23 February 2005).
- The science teacher now used cooperative groups in teaching because he observed how gifted children often assumed a leadership role for the group by sharing their knowledge and helping others to learn. He reported that some gifted children preferred to work alone in his class: therefore, he created a group of only gifted students to involve them in special problem-solving activities. This was a new strategy, learned from the professional development programme that was found to be successful (Interview. Science Teacher. 23 February 2005).

Case Study School classroom teachers in mathematics, primary and secondary English, science, and foreign languages assumed added responsibility for pupils who were identified as gifted by providing additional project work for them, i.e., an Internet project entitled 'Join Multi Medal 2000.' The relationship between teachers and gifted pupils led to additional successes, including when a teacher tried new differentiated strategies in the classroom and they worked well, even the pupils believed they needed it (Interview. Teacher D. 23 February 2005).

Thus, Case Study School teachers were empowered to differentiate their classroom curriculum. They utilised the Internet for teaching and worked with gifted pupils on special international projects and national competitions. Teachers involved parents in the identification process, and collaborated with colleagues on identifying and teaching gifted pupils from Case Study School and other schools. Most importantly, Case Study School teachers communicated openly about identifying and educating gifted learners, which was a new phenomenon that they had not experienced during the Soviet era (Interview. Teacher D. 23 February 2005).

Case Study School followed the Renzulli Three-Ring Concept of Giftedness Model (1977) and involved all of its teachers, parents, and pupils in the identification process. Pupils were nominated in all academic areas: Russian; German; English; Lithuanian; geography; informatics/ mathematics; technology; social studies; drama; choreography; art; music; chemistry; physics; biology; nature and man, and environmental science [Appendix R]. This may also have been a result of the professional development training where teachers learned about and were influenced by Gardner's Multiple Intelligences Model (1983), and who then chose to address pupils' intelligences rather than giftedness. Teachers identified students' talents in several areas of science, which suggested the level of importance Case Study School placed in that particular subject area.

About half (84 of 166) of the nominated pupils were identified for their special abilities. The highest percentages were recorded in choreography, drama, technologies, natural science, biology, and art and aesthetic education studies. Two areas that were featured as the most important aspects of creativity were 'creative thinking' and 'motivation.'

The school psychologist prepared a report on the results of implementing the new gifted identification process [Appendix O]. Of the gifted pupils who were interviewed in the identification process at Case Study School, 69% had special abilities for divergent thinking and 54% had outstanding abilities in a specific area, e.g., mathematics. This estimation was based upon the belief that a gifted pupil is usually the most self-sustaining in class. The case study school psychologist stressed that the gifted identification process needed to become more focused and less time-consuming: open-ended questions were not time-efficient and teachers needed a chance to discuss the first attempt at identification (Interview. Case Study School Psychologist. 23 February 2005).

Because the case study school screening committee analysed multiple data to identify pupils who excelled in one or more areas and received a teacher nomination, more children qualified by meeting this criteria than anticipated. One teacher stated (Interview. Case Study School Secondary English Teacher. 22 February 2005):

Originally I thought that a gifted child had to be gifted in all areas, but my belief has changed. I now understand that a child can be bright in one or more areas to be considered 'gifted.'

The screening committee considered creativity a complex phenomenon that included components of divergent thinking; motivation; psychosocial abilities; intellectual abilities; knowledge, and personality. The committee asked pupils who filled out the nomination forms to consider 'creativity' as a qualifying factor because it would serve as a determining factor when examining the background information of the nominees.

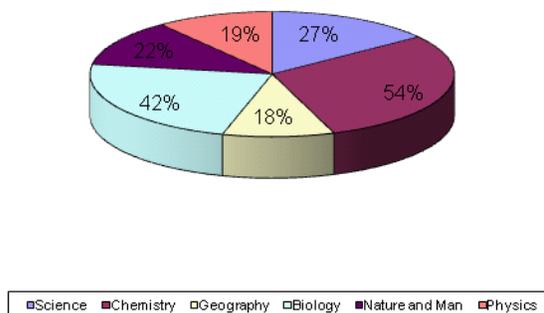
It was difficult to find out which pupils were the creative ones (Interview. Case Study School Psychologist. 23 February 2005). This difficulty was hardly surprising since creativity is difficult to estimate in situations where information on pupils is lacking (Andriuskiene, et al., 2004). Subsequently, a large percentage of the case study school students who received nominations in all four areas (teacher, parent, self, peer) and were recognised for creativity and independent work, were thus identified as 'gifted.'

It could be inferred that the case study school screening committee identified a large population as 'gifted' because teachers gave praise freely and awarded all 10s when making their nominations (Interview. Teacher D. 22 February 2005). Even though the screening committee members believed the potential gifted candidates possessed an aptitude for special abilities, the screening committee considered the number of nominations to be inflated. The breakdown by subject areas of nominated gifted pupils is presented in Table 5.1.

Table 5.1 Identification of Gifted Pupils by Subject Area

<u>Grade</u>	<u>Subject</u>	<u>%</u>	<u>Certified as</u> <u>Gifted</u>	<u>Total in</u> <u>Talent Pool</u>
Grade 8				11
Gr. 8	Chemistry	54.50%	6	11
Gr. 7 & 8	Physics	19.20%	5	26
Gr. 7 & 8	Biology	42.30%	11	26
Grade 7				15
Gr. 6 - 8	Russian	18.00%	7	39
Gr. 6 - 8	German	10.00%	4	40
Grade 6				13
Gr.6	Geography	17.90%	7	39
Gr. 5 - 6	Nature & Man	21.90%	7	32
Gr. 5 - 8	Social Studies	21.40%	14	58
Grade 5				19
Gr. 4 - 8	Drama	32.10%	27	84
Gr. 4 - 8	Math	27.30%	23	84
Gr. 4 - 8	Choreography	44.00%	37	84
Gr. 4 - 8	Art	13.10%	11	84
Gr. 4 - 8	Music	15.50%	13	84
Gr. 4 - 8	Technology	32.00%	27	84
Gr. 4 - 8	Lithuanian	25.00%	21	84
Gr. 4 - 8	English	16.70%	14	84
Gr. 4	Environmental Science	27.00%	7	26
Grade 4				26

Table 5.2 Identification of Gifted Pupils in Science (Percentage of Original Class Size)



Within the science subjects [Figure 5.2]:

- 7 or 27% Fourth Grade pupils in environmental studies;
- 6 or 54% of Eighth Grade pupils in chemistry;
- 7 or 18% of Sixth Grade pupils in geography;
- 11 or 42% of Seventh - Eighth Grade pupils in biology;
- 7 or 22% of Fifth-Sixth Grade pupils in nature and man, and
- 5 or 19% of pupils in physics.

In addition to nature and science, almost equally popular was the area of aesthetic education:

- 27 or 32% of Fourth-Eighth Grade pupils exhibited special abilities and skills in Drama, and
- 37 or 44% of pupils in choreography.

A rather low percentage of children were identified in the areas of the arts:

- 11 or 13% of pupils of Fourth-Eighth Grade pupils were gifted in art, and
- 13 or 15% of pupils in music.

Languages were an area of very low representation for those identified:

- German was only 4 or 10% of Sixth - Eighth Grade pupils;
- Lithuanian was 21 or 25% of Fourth-Eighth Grade pupils;
- English was 14 or 17% of Fourth-Eighth Grade pupils, and
- Russian was 7 or 18% of Sixth - Eighth Grade pupils.

Other academic areas revealed varying results. A fair representation of students was identified as gifted in technology (27 or 32% of pupils). Not surprisingly, about a quarter of the mathematics pupils were identified as gifted in the area of mathematics: 23 (27%) of pupils in Grades Four-Eight. The area of social studies, especially that of history, was favoured by 14 (21%) of Fifth-Eighth Grade gifted pupils. To provide additional information in the selection process, the screening committee examined additional content areas in which these pupils excelled: social skills, self-independence, working process, and thinking skills.

The case study school identification process raised many issues and questions for the researcher. Clearly the percentage nominated was much higher than the 5 - 15% of the population suggested by Gagné (1985) or by Renzulli and Reis (1997). Could a student have been nominated if he or she assimilated new information in a meaningful way to solve a new challenge or problem? The nominee may have appeared profound and, thereby, different. Was this an extension of the Soviet Olympiad philosophy of coaching the students who were identified by their teachers at the very top? Lithuanian teachers utilised observations, conversations, and tests to distinguish bright pupils from gifted ones for the selection process. It was unknown if there were any underachievers or minority children who were overlooked as potential gifted candidates in the screening process. What gifted children shared in this identified gifted pool appeared to be high achievement in a particular teacher's subject area to receive that teacher's nomination. Certainly, the case study school psychologist thought that the screening committee had identified a high portion of its population as gifted because teachers gave high marks (all 10s) on the nomination forms, but did not write distinguishing comments to explain the high marks (Interview. Case Study School Psychologist. 26 February 2005).

As an outcome of the professional development programme, the case study school screening committee looked for various ways to identify gifted children according to multiple intelligences, as suggested by Gardner. The screening committee examined 17 subject areas and three socio-emotional areas (independence, motivation, and creativity) for giftedness. The smallest percent of pupils identified as gifted was in the subject of German at 10%, (4 out of 40 in Grades 6 - 8). The highest percent of

gifted pupils to be identified was 54% (6 out of 11) in the area of chemistry. In science, gifted pupils were identified at 37% (5 subject areas); in languages, 17% (4 subject areas); in social studies/geography, 12% (only 2 subject areas); in mathematics, 27% (one subject area); in the arts (dance, music, art, drama); 26% (4 areas), and in technology, 32% (one area).

It was not clear, however, why some subject areas had higher percentages of gifted children than others. For example, was the 32% of identified gifted pupils in technology a high percentage because the teacher was not as familiar with the novelty of computers at school? Many students in Lithuania have a computer at home, whilst most teachers do not have a computer and are not yet 'computer literate' (researcher's personal observation from teaching APPLE courses).

Why was the area of social studies so low? Was there as much emphasis to do well in this area as compared to that of a global society stressing technology? Were the Russian and German languages a lower percentile than the Lithuanian and English because they are no longer favoured in schools since the Soviet era? In a videotaped interview after the professional development programme, Teacher J. stated:

We have differences at schools as well. Teaching Lithuanian to kids is not motivating because they say they know it and want to know more things to move about in the world. When we join the EU, English teachers will be prestigious. Maybe pupils will only study for exams.
(Interview. Teacher J. 29 January 2003)

Creative abilities were considered to be highly important for gifted pupils. This is consistent with the Renzulli Three-Ring Conception of Giftedness Model. It was also consistent with the professional development participants' list of 20 characteristics in which they ranked creativity as number 4, rising in importance (16 - 30 %) in the comparison of pre- and post-survey responses [Chapter 4, Section 4.6.1]. The screening committee relied heavily upon creativity on the nomination forms and on pupil interviews to determine whether a student was creative and, thus certified as 'gifted.'

Creative abilities in psychology are considered to be among the most important for gifted and talented pupils. Creativity is considered to be a complex phenomenon that includes: divergent thinking; motivation;

psychosocial abilities; intellectual abilities; knowledge; and personality. The Case Study School screening committee evaluated background information of each potential candidate based upon the nomination forms (teachers, parents and pupils) in addition to interview data on creativity and capacity for individualised work.

(Andriuskiene et al., 2004)

Parents, pupils, and teachers were then informed of the identification results. This time frame for implementing the identification process was similar to other Kaunas regional schools who had participated in the professional development programme. It must be noted that change can take longer to occur in Lithuania than in the West because of the need to mobilize people who were not encouraged to be active learners or to take risks for new ideas during Soviet times.

The case study school screening committee identified students who were gifted artists according to the nomination forms. It was ironic that Case Study School, previously known for its art and drama classes, could no longer offer regular lessons in the arts because of budgetary cuts. The Sixth Grade English teacher, who took great pride in her gifted pupils' abilities and success with teaching integrated lessons, asked permission from the headmaster to reintroduce an arts programme for gifted children. However, permission was not granted because of a lack of funding.

5.9 Comparison with Other Lithuanian Schools

Hammersley (1992) generalises that if the case study examples are similar, results can be applied to other schools of a similar nature. To test how well results from the implementation of the identification process at Case Study School applied to other Lithuanian schools that also sent teachers to the professional development programme, a short questionnaire was mailed on 10 June 2003 [Appendix N]. The questionnaire posed the following questions:

1. Were gifted pupils identified at your school? If yes, who identified them?
Was a committee established? If yes, who was on the committee?
2. How many pupils were identified as gifted? How many girls, how many boys?

3. How were the pupils identified? Did you use the Renzulli nomination forms information? If yes, was it peer, parent, teacher, and/or self-nomination?
4. Were students and parents informed of the identification process?
5. Did the information provided at the seminar impact your curriculum or help in the way you teach gifted pupils? If yes, please describe.

Although Lithuanian teachers received approval to implement the gifted student identification process, it obviously took time to organise screening committees at their schools. Many schools, therefore, did not begin the gifted identification process until the fall of 2003, or later. From the responses, four schools were randomly selected, coded numerically, and identified in this study according to generalities of population and/or grade levels and were coded numerically [Section 5.9]. The findings of their implementation of the gifted identification process were compared to those of Case Study School [Table 5.3].

5.9.1 School #1

A screening committee that consisted of several teachers was established for the purpose of identifying gifted pupils at School #1. The screening committee interviewed 144 pupils, ages 10 – 18, and reported: 10% of the pupils evaluated themselves as ‘really gifted;’ 65% of the pupils confirmed that teachers gave them additional tasks because they were gifted; 75% of the pupils participated in different contests and competitions, 35% won recognition through awards; 70% of the pupils said that teachers at School #1 were good, and that they hoped to achieve good results in their studies.

Teachers and pupils at School #1 were informed of the gifted identification results. It was reported that pupils valued their teachers’ professional knowledge, sense of humour, and creativity. School #1 also reported that the professional development programme was very useful for their teachers in identifying and working with gifted pupils. Although laws are still needed in Lithuania to regulate the educational status of gifted children, the gifted identification process had clearly begun at School #1.

5.9.2 School #2

School #2 reported its attempt to implement the information from the professional development programme to identify gifted pupils. After the professional development training, teachers introduced the materials to their headmaster, who gave his approval to use in the identification of gifted pupils at their school. School #2 established a screening committee to identify gifted children comprised of four teachers who participated in the professional development programme. The screening committee prepared the documents for the identification process by using the modified Renzulli nomination forms.

School #2's screening committee informed its teachers, pupils, and parents about the gifted identification process. Additional information that was obtained from the professional development programme was shared with other teachers during faculty meetings. Because it was the end of the academic year, the school was focused on final exams, and therefore, had no time to implement the gifted identification process. A decision was made to implement the identification process the following year; thus, no results were available at this time. Introducing the identification process to the school's parents and students would become the school's main objective the following year. One teacher wrote:

There are no problems with teaching pupils of primary school, but we have some difficulties with teaching senior pupils. We do not know how to teach these students, and we do not have a curriculum for them. Our headmaster is deeply troubled by this, but we have no answers. We realise that we have not been able to do as much as we would like to do, and are very interested in obtaining more information about teaching gifted pupils.

5.9.3 School #3

School #3 was a basic school for Grades 1 - 10 with a population of 832 pupils (452 boys and 380 girls). School #3 decided to implement the gifted identification process and to become partners with School #2. A committee was established in November 2003 that consisted of 11 members; some of these members included the headmaster, two assistant headmasters, and a chairwoman of the 'methodological societies.' School #2 reported: 685 students in Grades 1 - 8 were involved in the nomination process (371 boys and 314 girls), and 262 of the students were in Grades 1 - 4. Based on Gardner's Multiple Intelligences Model (1983), and using a peer nomination form, students nominated 31 of their 423 peers in Grades 5-8.

The selection process was considered to be objective because results were in line with the second term grades, which were 'excellent.' Peer nomination forms were discussed in classes, and both parents and students were informed of the results of the gifted identification process. In contrast to an earlier reluctance of the screening committee to communicate with parents of gifted children, the school psychologist believed parental involvement and feedback was a necessity. Parents needed to be understand implications of having a gifted child, and should be included in the decision-making of the identification process. One teacher commented:

The information was very useful for parents who sometimes have a tendency to overestimate their own children.

Interestingly, in comparison to responses from teachers, peers wrote the most explanations for open-ended questions to nominate a classmate. Some students wrote interesting responses on their nomination forms:

Giftedness is the feeling to be responsible. Those students who were not accurately identified as gifted were unsuccessful because no-one identified them.

The general intellectual ability of those nominated pupils was summarised by the screening committee on 23 December 2003. The gifted nomination process continued until the 26th of January 2004. In March 2004, one teacher emailed:

We are glad to inform you that one of our identified Fifth Grade gifted pupils participated in 'The Help for Project Maecenas,' an educational contest that is organised and funded by the Mstislav Rostropovich Charity. He was one of ten pupils who won the contest and received a 400 Litas grant (approximately \$117 Euros). We are very happy that he was among them.

On 14 May 2004, School #3 reported the completion of the gifted identification process at their secondary school according to the methods and nomination forms from the professional development programme. Results for Grades 1 - 4 were reported: Languages (2); Mathematics (6); Music (1); Art (1); Sports (7), and Dance (10). Results for Grades 5 - 8 were reported: Native language (10); Foreign Languages (20); Sciences (14); Exact Sciences (6); Sports (15); Art (5), and Dance (2).

School #3 identified pupils in Grades 5 - 8, and reported a range from high to low in the areas of foreign languages, sports, science, native language, exact sciences, art and dance. This report differed from that of Case Study School which identified science as the highest area. Both Case Study School and School #3 identified art as the lowest area. School #3 anticipated having a conference on 20 May 2004 with pupils, parents, and scientists to determine future plans for the gifted children in their school.

5.9.4 School #4

School #4 [Appendix Q] sent 8 teachers to participate in the professional development programme. Subsequently, 7 of these teachers became members of the school's screening committee to identify gifted children. School # 4, a secondary school of 757 children, had a 3% special needs population that exhibited learning problems. The educational process for the special needs students was both individualised and differentiated according to the pupil's special needs. Even though 7% of the school's population was identified as gifted, there was no special programme for these children at school. School #4 believed the students who were identified as gifted would benefit from a special programme to better demonstrate their abilities. For this reason, School #4 was interested in creating special programmes to teach gifted children and wanted to hire a teacher of the gifted to assume this responsibility.

School #4 noted that gifted students were not equally distributed among classes. Of the 33.3% who were identified as gifted Sixth Graders, 15.8% were in the first period class of the school day. This analysis implied the importance of identifying gifted students according to their abilities. Findings showed that out of 57 students, the following were identified as gifted: 35 in foreign languages; 30 in science; 25 in mathematics, and 22 in art. It was reported that a flexible gifted identification programme was necessary to accommodate the various needs and abilities of gifted children in School #4. Teaching materials also were needed to accommodate individualised and differentiated lessons. Teachers and administrators at School #4 sought ways to individualise and differentiate the teaching of gifted children, including the application of new and effective methods.

Neff (1987, as cited in *Lithuania in the World*, ANON, 2005) suggests creating a matrix or comparison chart, to allow data to be displayed for further condensing, selecting, and transforming of the information gathered. Therefore, a chart was created by the researcher to compare similarities and differences of Case Study School and the four Kaunas regional schools.

Table 5.3 Comparison of Case Study School and Four Kaunas Regional Schools

Kaunas Region Schools	Case Study School	School #1	School #2	School #3	School #4
Professional Development Nomination Forms Used	Y	Y	Y	Y	Y
% of Identified Gifted Pupils	26%	10%	NA	7%	7%
Informed Parents & Teachers	Y	Y	Y	Y	Y
Problem and/or Successes	<p>School was in risk of being closed by government.</p> <hr/> <p>Gifted pupils won awards.</p> <hr/> <p>Teacher published book.</p>	Needed a law to regulate gifted status	Needed help drawing conclusions from research (analysing parent forms).	<p>Held conference with gifted pupils and mentors.</p> <hr/> <p>Gifted pupils won award.</p>	<p>Needed special gifted education syllabus.</p> <hr/> <p>Need a special teacher of gifted pupils.</p>

All five schools translated their results into English and sent them to the researcher, and all five schools reported utilisation of the modified Renzulli nomination forms from the professional development programme in their gifted identification process. School #2 requested help to analyse and draw conclusions from the information derived from the parent nomination forms. In contrast, School #3 found parent nomination forms to be useful, but reported that some parents might have overestimated their own children's abilities.

Case Study School identified 26% of its population as gifted, which was much higher than the three schools which reported a range of 7 - 10%. It was possible that the teachers' nomination forms did not communicate the pupils' abilities because the pupils received the highest scores of all 10s without explanations (Case Study School Psychologist, 26 February 2005). It can also be inferred that the school continued to attract 'bright' children as it had done since its original inception in 1992.

Case Study School identified pupils in Grades 4 - 8 with the intent of identifying pupils in the lower grades the following year. To facilitate the gifted identification process and address problems that occurred during the implementation process, the screening committee formulated principles for identifying gifted pupils:

1. Equity;
2. Recognition of difference;
3. Educational excellence;
4. Partnerships – school/family/community;
5. Evidence-based research practices, and
6. Encouragement, support of parents and teachers.

Even though Case Study School began the gifted identification process earlier than the four Kaunas regional schools, all five Lithuanian schools were operating at the beginning (first year) of Fullan's Implementation Stage. All of the schools adopted the gifted identification process and organised a school-based screening committee. Interestingly, all schools used the modified Renzulli nomination forms created during the professional development to involve parents, teachers, and gifted students in the identification process. For example, one Case Study School parent nomination form reported on the identification of giftedness:

A person is gifted if he knows a subject well and likes it. He has to be gifted if he is interested in everything, attentive, and engaged during lessons.

This involvement of parents is in contrast to previously-held relationships between parents and teachers during the Soviet period when a single teacher made the decision that directed a pupil's academic status.

5.10 Case Study Discussion

As long as teaching remains a profession where isolation is the norm, where the knowledge that informs practice comes from outside the classroom, and where the quality control officers are removed from the classroom, teaching will be more like a blue-collar job than an intellectual pursuit. Eliminating these destructive features is essential to the health of the profession and the success of our schools. By changing the role of teacher, we can also change the teaching and learning process in our schools.

(Sagor, 1992: 5)

This second study addressed the research question of how teachers at a Lithuanian basic school implemented a gifted identification process after they attended a professional development programme in gifted education [Chapter 4]. Interview, personal conversation, audio and videotaping, journaling, questionnaire, reading of documents and classroom observation were employed to gather qualitative data. Conclusions were drawn and compared to four Kaunas regional schools whose teachers also received the professional development training.

A case study method employed in this research study exhibited both strengths and weaknesses. Because people talk more easily than they write (Gillham, 2002), individual and group interviews were conducted in addition to using questionnaires, taped observations, and journaling. Drever (1997) suggests gathering factual information about people's circumstances, collecting statements of their preferences and opinions, and exploring their experiences, and that motivations and reasoning can constitute good semi-structured interviews. Teachers at Case Study School who had attended the professional development programme were interviewed and shared their successful teaching practices of gifted students.

Dean et al. (1967, as cited in Doby, 1967) caution to not rely too heavily on articulate, insightful, and intellectually responsive informants because they may be members of the local elite; thus, the sampling may represent a biased group. Miles and Huberman (1994) argue people sometimes portray what others want them to see. In the second stage of this research, the population sampled was teachers at the case study school who attended the gifted education professional development. Because these interviewees wanted to share their positive experiences of teaching gifted pupils, it can be inferred that they represented a biased population.

Qualitative data are not so much about behaviour as they are about actions and intentions that lead to consequences. Thus, it was important for the researcher to focus on natural, ordinary events in the classrooms to provide an authentic setting to study the implementation of a gifted identification process at Case Study School. The researcher organised classroom observations at Case Study School during the week of 21 February 2005, but was uninformed that it was a mid-semester exam week. It was difficult, therefore, to obtain many of the interviews the researcher had hoped to acquire. It would have been interesting to obtain additional information on the achievement of all students who were identified as gifted, as well as information on the achievement of those who were not identified but who had achieved success in a similar manner. It was also questionable whether the teachers who shared their gifted students' work and awards with the researcher may have selected only a top few to represent the identified gifted population.

Implementing changes in different sectors and levels of education remains one of the most serious challenges throughout the reform years and is indicative of the need to improve the quality of change management in Lithuanian education (Zelvys, 2000). Williams et al. (1997) argue that no reform programme can succeed unless it addresses the needs, and uses the knowledge, of those individuals who are directly responsible for its implementation. To implement change in gifted education, the case study school's screening committee members served as what Fullan calls 'change agents' to take ownership for the gifted identification process and move the change forward by providing differentiation both in and out of the classroom. Ruf (2005) recognises that many teachers and administrators are not trained to identify characteristics of bright young children. Case Study School's screening committee members had to revise their knowledge of gifted identification throughout the years of the study.

To begin the gifted identification process, the committee screened pupils in Grades 4 - 8 using nomination forms created at the professional development programme. These forms were supplemented with an interview by the screening committee members who asked which students could be considered 'creative.' Although 166 pupils (26%) were identified as potential gifted candidates, this was two to three times as many gifted pupils as identified by the four Kaunas regional schools. However, the number

was consistent with the professional development survey response in which 50% of all pupils could be regarded as gifted. Because of the large number of pupils who were identified as gifted, the screening committee decided to tighten the identification process for the following year and require that a pupil receive a nomination in all four areas (parents, self, peer, and teacher). Through pupil interview, the screening committee was able to make a final determination to identify gifted pupils based upon additional identifiers: creativity, individualisation, and specific areas of high acceleration.

Empowering Case Study School teachers to participate in the design and implementation of a gifted identification process circumvented the continuation process and made the prospect of the school closing even more disappointing.

Teacher D. (Interview. 23 February 2005) stated that there were still threats of Case Study School being closed, but the screening committee discussed what happened in the identification process [during 2004] that was both good and bad:

Our plan was to create a system. Our plan failed, because of administrative problems and lack of funding. But, [Case Study school] teachers did not stop working with gifted pupils. Teachers continued to work on the identification process, and have some idea for how to teach using differentiation. Even if our school had no gifted identification system in place, it didn't matter; gifted pupils have to be taught.

The screening committee met in March 2004, after the second term, and continued with the identification process because we now have new children from various schools that might, also, be gifted. We have to identify them, and maybe we can identify them in multiples areas. Teachers have gifted pupils participating in the Olympiads and contests, and teach what they now know about gifted children to other teachers. They will continue to grow in their knowledge of gifted because they see how well the identification process works and know [that] it is needed.

Lewin and Regine (2000: 27) caution that it is important to pay attention to how people are treated in addition to paying attention to structures, strategies, and statistics. Such advice can, also, apply to gifted pupils. There was clearly a need for pupils in Case Study School to be identified as gifted. It was important for pupils' self-confidence that they knew their teachers thought of them as gifted. It was equally important for teachers and parents to recognise the need to nurture gifted students so they could achieve their full potential. The case study school psychologist (Interview. 23 February 2005) reflected:

As a school psychologist, what would be my role in determining the needs and helping our gifted pupils? As they become teenagers, gifted children encounter social and relationship problems, and seek their future identity.

The case study school psychologist understood the importance of her job in testing gifted pupils in areas of both ability and achievement and in conducting courses on socio-emotional needs of gifted pupils for teachers, pupils and parents. She wanted to help gifted pupils understand their strengths, weaknesses, and learning styles to provide guidance and to help them develop positive relationships (Interview. Case Study School Psychologist. 23 February 2005). Because of an asynchronous development in gifted children, relationships can be particularly difficult for the gifted (Silverman, 2000). Freeman (2001) argues for emotional stability of gifted children, stressing that although asynchronous development can happen in the gifted, it more than likely will not. Because highly perceptive children may pick up information their peers miss, but are not yet mature enough to deal with, the situation can cause much stress for both the gifted child and his or her parents and also pose a particular challenge that these children not be overlooked in the identification process by teachers and parents.

For a future successful implementation of the gifted identification process, Lithuanian administrators, teachers, parents, and gifted children needed to believe that systematic identification was a necessity. It was also recognised that more flexibility, rather than a fixed approach, was needed in the identification process when attempted again (Interview. Case Study School Psychologist. 23 February 2005). Special classroom materials that challenge gifted learners, including differentiated curriculum, need to be made available and accessible to all who work with the gifted. Collaboration continues to be important for members of Lithuanian learning communities to ensure success for implementing and sustaining gifted education programmes. The case study school screening committee provided a good example to manage and understand change through collaboration at all levels.

Collegiality and experimentation are essential ingredients in the work culture of effective schools (Little, 1982, as cited in Sagor, 1992). Case Study School exhibited these qualities even when confronted with a future loss of existence. Fullan (2001) proposes that reculturing schools as exciting learning communities is the only way to

attract good teachers. It is through collaboration and sharing that the quality of learning and teaching is enhanced, and no reform programme can succeed unless it addresses these needs and uses the knowledge of those individuals actively involved as leaders directly responsible for its implementation (Fullan, 2001; Williams et al., 1997).

Fullan (2001) finds quality leadership is the key to successful change. It is a difficult role for Lithuanian teachers to assume leadership and to serve as change agents because of the fear and submission they experienced under communism. Sternberg (1997: 125) argues that if people had not valued outstanding performance or if they were brought up to value *not* standing out from the crowd, at least in unconventional ways, conformity is oftentimes the norm. Nevertheless, the task of assuming a leadership role is a difficult one, especially for people who experienced life under communism. Emanuelis Zingeris, one of Lithuania's parliamentarians in Vilnius, spoke of Lithuanians being injected with fear and submission:

We have lived in a system where no one could be different. Tens of thousands of our intellectuals were exiled to Siberia in the 1940's. We have a few capable leaders, but we are not used to speaking out, as other people are. This is why we value every person who hasn't been co-opted by the Soviet system – and there are not many of them.

(Vesilind, 1990: 10)

Thus, it can be argued that it was necessary to mobilize people to take on the tough problems (Heifetz, 1994), and because Lithuanian teachers believed there was little improvement in the educational system since the end of the USSR (Williams et al., 1997), it was important to actively engage them in Fullan's Initiation Stage by providing professional development in gifted education. Teachers who attended the programme had an opportunity to collaborate with colleagues in their schools as well as at the seminar and to reflect upon and process implications for educational change. In addition to strengthening their leadership role, it was equally important for Lithuanian teachers to provide opportunities for their gifted students, the country's future leaders, to develop these skills.

When teachers 'find their voice,' and become leaders, they may be viewed either as resources or as troublemakers (Anderson et al., 1994: 26). From the responses of the four comparison schools, it appears that there was an increased awareness of a

leadership role of the screening committee and teachers. Russell (1992, as cited in Gitlin et al., 1992) underlines the importance of practitioner research as a starting point for the identification of a struggle between silence and voice and for how an individual's reflections and questions become a powerful catalyst for the development of a multilevel approach to intervention in a school. Although many teachers begin their careers with a sense of social significance and personal satisfaction, they may become disheartened in their career with a sense of inconsequentiality (Fullan, 1993). Ironically, there was some evidence of this happening at Case Study School as teachers became more aware of the learning needs of their gifted pupils.

We have gifted children in our school and our teachers already do a lot of things to teach them. We don't know how to write this up so that it can be official because we don't have any structure or vision of a gifted curriculum or programme. We have only read some articles on gifted children, but don't know what the next step should be.

(Interview. Teacher D. 30 January 2003)

Mindful deliberation was important for Lithuanian teachers to become change agents. Popham (1988) cautions evaluators who impose traditional measurement technology on educational evaluation problems are doing a disservice to the decision makers whom they are trying to help. To this end, following the Renzulli and Reis Schoolwide Enrichment Model (1997), teachers encouraged creativity in the classroom and created integrative lessons that were both fun and interesting for their students. Teacher D. (30 January 2003) reasoned:

Teachers have read about creativity and critical thinking, but many didn't understand how to apply the information to impact student-learning.

Lithuanian teachers took pride in sharing their students' projects and awards, which validated successful recognition of identified gifted pupils, an outcome of the identification process (Interview. Case Study School Mathematics Teacher. 23 February 2005). Guilford (1950) argues that creative people have a significant desire for hard work. Therefore, recognition of those gifted students who exhibited creativity was a way to share student outcomes whilst validating a gifted identification process that seemed to work. Recognition of student work was also a source of personal validation to Lithuanian teachers who previously relied on their own intuition to identify giftedness. Upon learning that a child was identified as gifted, a teacher remarked:

Yes, I was right. This student was gifted and I have to do something now to meet his learning needs.

(Interview. Case Study School Psychologist. 23 February 2005)

Because change affects every aspect of life, the only way to take charge of the future is to be proactive and approach it with an open mind (Heller, 1998). Therefore, to guide teacher thinking and encourage ownership in the strategic development and implementation of a gifted identification process, it was necessary to empower Lithuanian teachers to encourage them to take risks in managing the change process.

The school psychologist further reflected:

It is very important that teachers help to identify gifted pupils to the psychologist. If I know these students are gifted, what can I do? Maybe, I can run a group to share ideas and participate.

(Interview. Case Study School Psychologist. 23 February 2005)

To summarise, as described in Chapter 2, Fullan's model was used as a broad framework to examine four phases in the educational change process at Case Study School: Initiation, Implementation, Continuation, and Outcome Stages (Fullan, 1982; and Fullan & Stiegelbauer, 1991). Following this examination, findings from Case Study School were compared to results of four Kaunas regional schools, all of whom found value in the gifted identification process. The five schools evidenced parent, teacher, and student involvement in the identification process and, thus, reflected the influence of the Renzulli Enrichment Triad Model (1977) from the professional development programme.

A common vision, important to the clarification and understanding of goals to be achieved, positions teachers to make improvements in an ever-changing world (Fullan, 1993). However, the realisation of an even broader goal is to enhance regional cooperation in Central and Eastern Europe, in which Csermely (2003) advocates for teachers to extend future exchanges of talented pupils at the national level. All five schools reported clear connections between newly identified gifted students and their accomplishments; thus, pupils qualifying as 'gifted' in the identification process also served to reinforce identification of academically competent students for national competitions. Finally, the five Kaunas regional schools reported the need for financial support in addition to the need for appropriate

materials and resources in gifted education, including training teachers, to work with gifted students.

The main successes of this research study which demonstrate the value of this research were two-fold: (1) the implementation of a systematic gifted identification process by the case study school screening committee, and (2) that Case Study School teachers who attended the professional development programme began to differentiate their curriculum for identified gifted pupils. Subsequently, other Kaunas regional schools viewed Case Study School as a leader in identifying gifted children and sent their teachers to visit and discuss the identification process. Case Study School experienced significant notoriety from the publication of the mathematics teacher's book on working with gifted pupils and both the primary and secondary English Class pupils receiving national and international recognition in competitions.

Next, a network was created ('Conception of Gifted Children, Development in Kaunas,' *Kauno Miesto Gabiu Vaiku Ugdymo koncepcija*) for Lithuanian teachers of gifted pupils, a way for them to share materials and successful teaching practices of working with gifted children. This network was organised by the Department of Education in Kaunas to support the efforts of these teachers and attended by Lithuanian teachers from eleven schools which had participated in the professional development programme. The network also included teachers representing Case Study School and, in particular, Teacher D., who now served as an educational consultant in gifted education.

After reading a newspaper article [Appendix S] on the gifted identification process at Case Study School, the Director of the General Education Department in Vilnius met with the researcher to discuss the organisation of a research team to develop a national gifted identification model and the necessity of finding experts to train Lithuanian teachers in gifted education (Personal Conversations. Pliksnys. 22 February 2005 and 25 February 2005).

Support has grown for the identification and education of gifted children in Lithuania. In December 2005, the Ministry of Education and Science adopted and federally funded a programme called the 'Strategy for the Education of Gifted and Talented

Children and Young People.’ This programme provided special training for teachers of the gifted by offering in-service teacher-training institutes that encouraged provision of appropriate education for gifted children (Siaulytine, 2006). In addition, Vilnius Pedagogical University piloted research for the gifted at the Educational Centre for Gifted (2004 – 2006) and, in 2006, the Netherlands Foundation for Central and Eastern Europe funded both the handbook of *Creativity Training for Teachers, Parents and Students* as well as a summer camp.

Last of all, in 2008, the researcher’s book, *Building a Gifted Programme: Identifying and Educating Gifted Students in Your School* (Leavitt, 2007), was used by a professor at Vilnius Pedagogical University for teacher training in gifted education (Email. Karkockiene. 10 November 2008). Thus, the work in gifted identification and education in Lithuania has now been recognised as policy.

Chapter 6

Conclusions

Be the change you wish to see in the world . . .

- Gandhi

6.1 Research Summary

This thesis reports research on the change in Lithuanian teachers' perceptions of giftedness and on the implementation of a gifted student identification process at a Lithuanian basic school (Case Study School) following an intervention utilising a North American model of professional development. The research involved two studies. The first study investigated the change in perceptions of giftedness originally held by Lithuanian teachers who attended a program of professional development that presented a North American pedagogical view of giftedness. Ninety-three teachers from thirty-three schools in the Kaunas region attended the professional development program at Kaunas Technological University. The second study investigated how Case Study School teachers implemented a gifted identification process at their school. The overall research context was one of political and cultural educational change following Lithuania's declaration of independence in 1991. As such, this study represents one of the first North American perspectives of post-Soviet reform of gifted educational practices in Lithuania.

The main research question for the first study was:

How have the perceptions of giftedness of Lithuanian teachers changed following a professional development programme in gifted education at Kaunas Technological University?

The rationale for studying the perceptions of giftedness of those Lithuanian teachers who attended the professional development program was based on the belief that teaching and learning influence decisions teachers make about curriculum and that they also impact provisions and opportunities teachers create for gifted pupils in their classrooms. Teacher development relies not only on changing classroom behaviours, but also on changing perceptions and belief

systems. Fullan (2001) argues that real change is difficult to achieve because it involves changes in conceptions and role behaviour.

The professional development program in gifted education focused upon North American models of giftedness, and as per the request of Kaunas Technological University, featured the Renzulli Three-Ring Conception of Giftedness Model (1977) as the most relevant for identification. It also introduced the Schoolwide Enrichment Model (Renzulli & Reis, 1997) as the most useful application to differentiate the curriculum for all pupils in Lithuanian classrooms, including the gifted. To offer a broader perspective of North American thinking about giftedness, the models of Gagné (1985) and Tannenbaum (1986) were presented in addition to Gardner's model of Multiple Intelligences (1983). Importantly, the professional development programme provided Lithuanian teachers from the Kaunas region with an opportunity to collaborate on creating a definition of giftedness that would be generally acceptable to Lithuanian teachers throughout the country. This definition was:

A gifted child or teenager has higher than average intellectual (general and/or special) abilities, is creative, and differs from his peers (having the same school environment) in performing tasks in an original and productive way.

In arriving at this definition, the teachers produced a list of characteristics of gifted pupils that were then used to develop an identification procedure, which included nomination forms that were based upon this description.

Qualitative evidence for change in teachers' perceptions about giftedness resulting from this professional development was gathered from pre-and post-surveys, interviews, and questionnaires. Initially, *Mind Mapping* was utilised to illustrate thematic and conceptual patterns of change in Lithuanian teachers' thinking about giftedness. *NVivo* was then employed to code and analyse the data. The researcher was, therefore, able to compare initial *Mind Mapping* interpretations with an additional mode of analysis to verify interpretations of the results. Overall, 91% of Lithuanian teachers who had attended the professional

development programme indicated that their thinking about the nature of giftedness had changed and that they now were able to more clearly identify a gifted learner.

In adopting this broader conception of giftedness the teachers acknowledged that giftedness could be general as well as domain-specific. The *NVivo* coding reflected the multi-dimensional nature of gifted children and the methods teachers needed to reach them. In the post-surveys, Lithuanian teachers recognised new ways to identify gifted pupils, indicators that were different from their previous notions of intuition and observation. Although many Lithuanian teachers believed the requirements for gifted pupils were already being met in the classroom, they now felt challenged to identify gifted pupils using a systematic process, and to then create specific provisions (including opportunities) utilising differentiation. Teachers' reflective practice during the professional development programme allowed them to establish a foundation for their professional knowledge base in gifted education. From this understanding, these Lithuanian teachers were able to develop their ability to plan and develop a gifted student identification procedure to use in their schools.

The main research question for the second study was:

How did teachers at a Lithuanian basic school who attended the professional development in gifted education at Kaunas University implement a gifted student identification process at their school?

The educational change process at Case Study School was analysed through the framework of Michael Fullan's Model of Educational Change (1982): Initiation; Implementation; Continuation, and Outcome stages. Qualitative methodologies were employed in the second study and included: interviews, personal conversations, audio and videotaping, journaling, reading of documents, classroom observations, and questionnaires. Both formal and informal interviews were held with parents, teachers, staff, and pupils to analyse the effectiveness of the implementation process. Additionally, the researcher interviewed the case study school psychologist and the screening committee members who assumed responsibility for implementing the gifted identification process.

The case study school screening committee identified 26% of its population as gifted. Out of 120 potentially gifted candidates, 84 pupils qualified as 'gifted' by receiving nominations from all four groups: teachers, parents, peers, and self. Results from Case Study School were compared with four Kaunas regional schools that also had teacher participation at the professional development program. Not surprisingly, it was found that 26% was a high percentage of gifted pupils for a school, when compared with the other schools where the number identified as gifted fell into the 7-10% range. These schools reported a screening committee was organised to identify gifted pupils through utilisation of nomination forms that were created during the professional development programme. Similar to Case Study School, the four Kaunas regional schools also encouraged involvement from parents, teachers, and pupils in the gifted identification process.

Furthermore, it can be said that Lithuanian teachers who attended the professional development program did apply pedagogic innovations in their teaching practices. The case study school teachers attempted to differentiate classroom provisions in various ways, including after school classes and special projects for the identified gifted children. However, it was reported that some teachers did not believe they were expert in the area of giftedness and requested more training in gifted education [Chapter 4, Table 4.7; Chapter 5, Table 5.3, and Interview. Teacher D. 23 February 2005].

The professional development programme, together with publicity from the case study research, generated attention from the Ministry of Education and Science (Kaunas) and the Director of General Education (Vilnius). They requested meetings with the researcher to discuss the need for a systematic identification system for gifted children [Chapter 5]. In 2004, Case Study School provided Kaunas's Cultural and Administrative Department, *Kultūros ir Švietimo Departamento* [Chapter 5, Section 5.7.3] with gifted identification and education materials from the professional development program. The department created a support network to discuss identification and provisions for gifted pupils in Lithuanian schools. Teachers from eleven Kaunas regional schools who had

participated in the professional development training, attended meetings at the Department. These meetings were instrumental in gaining administrative support to create a national standardized gifted identification system for the country.

6.2 General Discussion

Able to shed a legacy of 800 years of subjugation, following its independence in 1991, Lithuania embraced the concept of globalisation to become the first former Soviet Republic to become a member of NATO (1991) and the EU (2004) (Budiene, 2001; CIA World Fact Book, 2007). No longer under Russian or Germanic influence, Lithuania was now in a position to reclaim its cultural identity. Lithuania established compulsory primary education and a network of secondary and specialised schools utilising Lithuanian as the national language. The restrictions imposed during the Soviet period on innovations in teaching, research, and publication, no longer existed (Gordon et al., 2004), so the country was keen to undertake education reform.

Lithuania's new nationalism laid the groundwork for recovery of the country's educational system and the valuation of individualism. Although Soviet educational thinking and practice greatly impacted the Lithuanian education system, Lithuania's national consciousness and identity remained intact. Subsequently, researchers, administrators, and teacher collaborated to build a foundation that supported education for gifted children throughout the country.

However, similar to when Lithuania's intelligentsia left for the West during WWII, many Lithuanian youth are leaving for the West; and, subsequently, the country is experiencing a 'brain-drain' (Juceviciene et al, 2004; Kelo & Wachter, 2004). In response to the loss of bright youth, Lithuania's educational goal is to promote individual pupils as active learners (Grigorenko, 2000, as cited in Heller et al., 2000). This goal contrasts with former Soviet organisation of gifted education of first to satisfying needs of society, then to promoting progress and, lastly, to promoting individualism (Grigorenko, 2000, as cited in Heller et al., 2000). Interestingly, the *gymnasia* continue to thrive and provide high quality education for a limited amount of highly gifted children as they did during the

Soviet era. However, in 2003, *Education for All*, provided for the equality of education for all Lithuanian pupils. This policy has significant implications for addressing academic needs of gifted pupils in all Lithuanian schools.

Now, in an advantageous position to examine international gifted educational models, Lithuania can determine what could work best for its gifted children. Perhaps similar motivation of looking to the West for new ideas prompted Kaunas Technological University to invite the researcher to present a North American perspective of giftedness at the first gifted education professional development programme in 2003. Because education reform requires increased attention towards professional knowledge and the lives of teachers, this study examined Lithuanian teachers' perceptions of giftedness and their practices in gifted education.

What can be learned from this research? These studies address a number of issues in gifted education, including the formulation of relevant governmental regulations, the influence on practice of common perceptions and beliefs about gifted children, and the professional development necessary to critically examine these perceptions to provide appropriate education for gifted children. These issues can be highlighted by analysing how the results concerning changed perceptions of teachers were realised in the implementation of a gifted identification process at the case study school.

In the broadened definition of giftedness, the teachers cited multiple criteria to identify gifted children. They now had a wider and more consistent conceptual basis for which to identify gifted children [Chapter 4, Figure 4.4]. Because there were more ideas in the pre-test responses of 'Creativity' and 'Analysis of Work,' it appeared that these were two familiar areas Lithuanian teachers used to identify gifted children. Finding 'Creativity' so highly valued by Lithuanian teachers today contrasts with the Soviet era when the Communist system did not favour individualism, but rather encouraged Lithuanian schools to focus on rote learning that produced passive learners (Jakubauskas, 2000; Budiene, 2001). Lithuanian teachers' recognition of the importance of creativity in gifted children supports Lithuania's educational goal of developing what Grigorenko

(2000, as cited in Heller et al., 2000) terms ‘active personalities’ and individualism among gifted pupils. This broadened perception of giftedness was also reported in the case study school Screening Committee’s list of 20 different criteria for nominating gifted pupils [Chapter 4, Table 4.10]. In addition, comparative results from four Kaunas regional schools reported the use of multiple criteria in the identification of gifted pupils at their schools [Chapter 5, Table 5.1].

It is critical for Lithuanian teachers to recognise and identify giftedness and talent among special populations, i.e. underserved and/or minority groups. To target both the presence of superior general abilities, g, or general intelligence and emerging talents or capabilities (Feldhusen & Jarwan, 1993, as cited in Heller et al., 2000), it is important to diagnose using multiple criteria. To acknowledge potential or demonstrated strengths, aptitudes, and talents as well as weaknesses, problems, and needs of gifted children, gifted identification processes should employ a variety of diagnostic methods. By examining a larger population of students, a potentially significant number of gifted students can be identified and nurtured, which could impact the achievement of gifted children (Feldhusen & Jarwan, 1993, as cited in Heller et al., 2000).

That Lithuanian teachers needed a wider professional vocabulary to describe giftedness was evidenced by more cohesive responses in post-surveys when teachers were asked to characterise gifted pupils [Chapter 4]. Teacher D. (Telephone Conversation, 7 July 2007) stated Lithuanian teachers now have a vocabulary to discuss giftedness and a new awareness for understanding the needs of gifted pupils. The most popular thinking prioritised ‘creativity, analytical thinking, curiosity, and leadership’ in lieu of the pre-survey first response of ‘quick orientation to new material.’ Additionally, pre- and post-surveys revealed single-word responses were replaced by more descriptive, rather than definitive, ones. It is advantageous for gifted education to have a more refined vocabulary. Effective communication between gifted education specialists, gifted children and parents of gifted children develops acceptance and builds advocacy. Advocacy can influence leadership in the creation and passage of laws to support gifted students.

It was not surprising, therefore, that a majority of teachers in the professional development program realised the value of multiple perspectives in the gifted identification process. Subsequently, teacher participants from Case Study School now became more empowered to identify gifted children in various areas of exceptionality, and to attend to the needs of pupils who exhibited exceptional behaviour in their classrooms. If such a change – making regular classrooms more challenging - were to happen throughout the country it could have significant implications to the process of halting the ‘brain drain’ of gifted Lithuanian youth.

More details about the perceptions of teachers involved in the two studies of this research were solicited from interviews [Chapters 4 and 5; Appendix J]. Included in these perceptions are some of the myths about gifted children as described by Webb et al. (2007) and Winner (1996) in Chapter 3. These myths challenge and raise intellectual, emotional, and political questions for society. Ruf (2005) argues there are many types of gifted children who exhibit several different levels of giftedness. Winner (1996) suggests that pupils who are labelled ‘talented’ nearly always involve high IQ scores, although intelligence quotients are not the only factor. Winner discredits this myth by explaining that once a student’s IQ exceeds 90, high IQ does not transfer to high performance in music and art. Some pupils may be talented or gifted in one area, but, as suggested Gardner (1983), others can exhibit talent or giftedness in multiple areas. Interestingly, other gifted children may be identified with a dual diagnosis: learning disabled and gifted, and thus are considered ‘twice-exceptional’ (Winner, 1996). Both Winner (1996), and later, Webb et al. (2007) suggest that rather than adhering to the myth that gifted children always are comfortable with their talents, that many feel disconnected and ‘out of synch’ their entire lives.

In this study, however, gifted Lithuanian pupils who were interviewed said they did not feel different than their peers (Group Interview: Case Study School Eighth Grade Gifted Students. 22 February 2005). It can be inferred that because some gifted pupils at Case Study School believed their academic needs

were being met and had a close relationship with their teachers, they did not feel different than their peers, and, thus, did not experience feeling ‘out of synch.’ However, the researcher cautions that because this group was a small sampling of the gifted population at Case Study School, other gifted pupils may have felt differently, but did not have or take the opportunity to communicate their beliefs.

Winner (1996) and Webb et al. (2007) list another common myth concerning gifted children which is that ‘all children are gifted.’ Winner (1996) argues that no one doubts some children are musical or athletic prodigies; yet, gifted children are biologically different, as evidenced both by size and structure of the brain, and their speed of thinking. One could speculate that this myth drives egalitarian governmental educational regulations; which, in a democracy, attempts to provide equitable education for all children. Laws, such as the *No Child Left Behind* in the United States, explicitly aim to benefit members of society by insisting their children meet basic proficiency standards. In Lithuania, gifted children are treated differently because they are classified as a special group. Lithuania’s legislation under *Education for All* requires appropriate provisions be made for gifted learners under the larger domain of special needs. This rationale is justified by the Ministry’s mission to provide equal opportunity for all Lithuanian pupils.

Interestingly, in neither the professional development nor the case study was there any evidence that Lithuanian teachers held the belief that ‘all children are gifted.’ This provision most likely builds upon the country’s long history of *gymnasia*, the system of higher secondary education that prepares students for academic professions. It could be inferred that because of this stratification, teachers assumed gifted children already had been identified, and those who remained in non-*gymnasia* classrooms had not fared well enough on the qualifying tests that would have identified them as gifted. Despite the fact that students from non-*gymnasia* classrooms were not designated as ‘gifted,’ the questionnaire sent to the four Kaunas regional schools [Chapter 5] revealed these schools still participated in Olympiad competitions. Their continuing participation in the Olympiad suggests that although Lithuanian teachers believed all gifted children were identified and properly educated in the

gymnasia, the teachers intuitively recognised outstanding pupil performance in the non-*gymnasia* classrooms and, thus, felt the necessity to acknowledge these students' intellectual abilities. Obviously, it is beyond the scope of this research to survey all non-*gymnasium* classrooms in Lithuania to determine whether deliberative approaches for the identification, education, and recognition of gifted children were utilised. However, the questionnaire results revealed that at least the Kaunas regional schools involved in the professional development program implemented explicit identification procedures in place of previous teacher 'intuition' or a 'guess and check' system.

'Gifted children will make it on their own without a special provision' is another myth (Webb et al., 2007; Winner, 1996). Although this myth is a concern in other countries, it was not evident as a concern in the professional development program study or in the case school study. Teachers at Case Study School assumed responsibility for differentiating their curriculum by offering extra assignments and after school projects designed intentionally for gifted pupils. It could be implied that after these teachers learned which children were identified as gifted, the teachers felt compelled to offer specific provisions to extend learning opportunities for their gifted pupils. For example, one Case Study school mathematics teacher believed his gifted students to be precocious and highly motivated; therefore, he worked with them after school on problem-solving activities using the Internet. Subsequently, the mathematics teacher published a book about problem-solving Internet activities with gifted pupils. The secondary English teacher worked with gifted pupils to produce award-winning student-created books, which were displayed in the Town Hall. Both the primary and secondary English teachers reported student recognition in national and international contests. These accounts can be seen as influenced by the professional development program's exposure to Renzulli's Three-Ring Conception of Giftedness Model (1977) and the Schoolwide Enrichment Model (Renzulli & Reis, 1997) in which teachers were challenged to find an authentic audience for the work of their gifted pupils. As Teacher D. (Interview. 23 February 2005) said:

I am looking for opportunities to find interventions [for gifted pupils] and ways to present them [in the classroom]. A teacher of gifted [pupils]

needs to be a hard working person. It is not easy to organise differentiation and deal with extra work for gifted pupils who complete work early. It is a challenge for teachers to create new work for these students that is broader and deeper.

The number one response to both pre- and post-survey Q6 Teaching Requirements for Gifted Children [Chapter 4, Figures 4.6; 4.7, and 4.8] was that gifted pupils needed differentiation to deepen and broaden their education. Even without the professional development training of the researcher's seminar, this need was recognised by Lithuanian teachers. It could be that teachers were made aware of the need for differentiation during the previous three seminars. However, Lithuanian teachers now felt newly challenged to offer appropriate provisions when they saw a child performing well.

Nevertheless, it is accepted that disadvantaged groups in a democracy require special provisions, which raises the question of whether or not gifted children belong in a special needs group. In some countries, such as Australia, gifted children are not included under special education provisions, but maintain their own autonomous classification. In the United States, on the other hand, the categorization of gifted children previously fell under the domain of special education, as evidenced by availability of individual state funding resources. Now the National Teachers' Certification (2008) recognises gifted children under the domain of 'exceptionalities.' Inadvertently, this change reinforces the belief that gifted children are expected to thrive on their own without special provisions and, subsequently, explains the reason classroom teachers in the United States tend to teach to the middle, rather than explicitly teach to the needs of their gifted pupils.

According to the myth listed of both Webb et al. (2007) and Winner (1996), gifted children are not gifted in all academic areas. As evidenced by the professional development program post-surveys, one of the most insightful changes that occurred for Lithuanian teachers was a change in that same belief. Subsequently, as a result of the programme, the case study school screening committee created a nomination checklist of 20 areas (17 of which were academic) for how a child might qualify as gifted. Case Study School teachers

from all specified academic and non-academic areas then nominated their pupils. Obviously, Lithuanian teachers now acknowledged the importance of utilising multiple criteria in the gifted student identification process and a multiple intelligence approach in the teaching of gifted students, the same conclusion proposed by Gardner (1983). Although not consistent with their original definition of giftedness, it must be stated that Lithuanian teachers' acceptance of a multiple intelligences approach marked their first attempt to systematically identify gifted children. As later suggested by the case study school psychologist (Interview. 23 February 2005), it was the intent of the case study school screening committee to make changes in the gifted identification process in the future.

That 'giftedness runs in families and is wholly inborn' (Webb et al., 2007; and Winner, 1996) may not be a myth as evidenced by the action of one mother, who upon learning about the gifted students' interviews with the researcher at Case Study School, approached Teacher D. (Interview. 23 February 2005) to request that her younger son be allowed to participate in the interview process. Because her elder son had been identified as gifted, the mother believed her younger son also might qualify. Unfortunately, the boy was younger than the students examined within the scope of the study; no provisions were made for interviewing him. Winner (1996) examines the role of parenting a gifted child and explains the driving or pushy parent whereby an overzealous parents' focus on stardom explains the mother's request for her child to be included in a gifted program. It seems more likely, then, that Winner's (1996) claim that 'children become gifted when parents push them,' also is a myth, for more often than not, prodigies usually push their parents to accommodate their needs.

It is the researcher's opinion that 'pushy parents' may be a common concern in the United States, where it is prestigious to have a child labelled gifted, whereas, in Denmark it is socially undesirable to have a child labelled gifted because the perception is that parents pushed. Case Study School Psychologist revealed that Case Study School received no complaints from parents of children who were not identified as gifted by the screening committee. Overall, parent questionnaire results from Case Study School indicated the belief that gifted

children were highly motivated academic achievers and were quick learners who adapted easily to new situations. It is suggested that Lithuanian parents did not question the gifted identification diagnosis or request a special programme for their gifted child because the gifted identification process was new to everyone at Case Study School and to everyone in Lithuania.

The case study school psychologist encouraged teachers and parents to work together as partners to develop a learning community. For example, the case study school screening committee formulated a methodology for identifying gifted pupils, one aspect of which suggested a partnership among school, family and community. This collaboration contrasted significantly with the protocol in place during the Soviet period when which only teachers directed a child's educational future. At that time, according to Grigorenko (2000 as cited in Heller et al., 2000), approximately 7% of children were recognised by their teachers as gifted and were sent to a *gymnasium* boarding school. This percentage was similar to results of the four Kaunas Schools [Chapter 5, Table 5.3] and of the teachers at the professional development: 49% of pre-survey results and 88% of post-survey results [Chapter 5, Figure 4.5]; but was quite unlike that of pupils identified as gifted at Case Study School (26%) [Chapter 5, Table 5.1]. It is likely that Case Study School identified a high percentage of gifted pupils because, as in the past, it still attracted bright children of wealthy families who were talented. Additionally, because the case study school gifted student identification process involved parents, pupils and teachers; it reinforced close teacher-pupil relationships and, subsequently, teachers wrote high marks on the teacher nomination forms. The involvement of parents, pupils and teachers in a gifted student identification process is highly recommended to other schools. It not only encourages a selection employing multiple criteria, but offers insight into the process to inform and include everyone in the decision-making process. Inclusion in the process reinforces understanding and acceptance, which leads to continued support.

Similar to the researcher's observations of Russian schools in 2006, *gymnasia* teachers strengthened their close relationships with gifted pupils by serving as their only mentor or coach in a boarding school environment in which parents

were not present. In contrast to Lithuania, the case study school psychologist recognised the importance of parental involvement and encouraged Lithuanian teachers to collaborate not only with the pupils' parents, but also with their colleagues. To encourage such collaboration, a network for teachers of the gifted was created by the Kaunas Cultural and Administrative Department. Teachers from various schools throughout the Kaunas region came to the offices of the Kaunas Cultural and Administrative Department to share teaching methodologies use in their work with gifted children. Some teachers then visited Case Study School to examine materials from the researcher's lectures and observe teachers who were differentiating curriculum so they could obtain information to create a gifted identification process at their school (Interview. Teacher D. 23 February 2005).

Another commonly-held myth on the list by Webb et al. (2007) is that 'gifted children are not aware that they have advanced abilities,' but this suggestion appeared true for some of the gifted students interviewed at Case Study School. After describing Renzulli's Three Ring Concept of Giftedness Model (1977), the researcher asked a group of Eighth Grade gifted pupils whether they believed they were gifted in at least one area. Surprisingly, only half (6) of the group raised their hand. One boy said he believed he was not gifted because some of his peers appeared as smart as he and also received the same grades in school (Group Interview: Case Study School Eighth Grade Gifted. 22 February 2005). Because these 12 students had been newly identified by the case study school screening committee that focused on creative and academic abilities, the students did not realise their giftedness and had not participated in any formalised gifted programming.

It can be surmised that among the gifted eighth grader pupils there was uncertainty in the meaning of the label to be 'gifted.' Therefore, it is recommended that the case study school psychologist meet in small groups with gifted pupils on a regular basis to focus on preventive counselling and to address their affective needs. Course work for parents, teachers, and gifted children is highly recommended to develop active listening skills, conflict resolution strategies and methods for stress reduction. Because gifted children learn

differently than their peers and giftedness is often misunderstood, it is important that all schools provide counselling programs for gifted children to address their different learning experiences and challenges, e.g., depression, perfectionism, etc.

Webb's list continues with the myth that 'gifted children's emotional maturity is as advanced as their intellect.' This belief held true in instances when some Lithuanian teachers included negative comments on the professional development programme post-survey. Despite the popular perception that gifted pupils will always be high achievers, some post-survey results indicated gifted children also could exhibit behaviour problems and, therefore, were difficult to have in the classroom because they demanded more attention from the teacher. This thinking is consistent with the research of Ruf (2005) [Chapter 3], which describes how gifted children can exhibit at-risk behaviours, and therefore suggests that not all gifted children can make it on their own without support. Consequently, the school psychologist realised the need to start a group only for only gifted pupils to help them understand social and emotional issues and provide career guidance (Interview. Case Study School Psychologist. 23 February 2005). However, due to the closing of Case Study School, initiative was not realised.

One issue that arose from the research discussions and interviews was that creativity is not always socially compliant; yet, the case study school screening committee used 'creativity' as an indicator of giftedness during their interview sessions with potentially gifted students. It is possible that in the Lithuanian context this was a shortcoming of the definition created during the professional development in which 'creativity' was included as a criterion for giftedness.

A final myth explained by Webb et al. (2007) is that 'educators will know exactly how to work with gifted children.' This myth was a core focus of the research. In Fullan's Model (1982), teachers serve as change agents. In the case study school, Lithuanian teachers chose to work after school with identified gifted children to offer a higher level of learning, and felt confident and validated that they were offering appropriate provisions to meet their students'

needs. However, teaching strategies for in-class differentiation, i.e., flexible grouping and pacing, or tiered lessons, were not observed in Case Study School classrooms. It can be assumed that these teachers did not feel sufficiently knowledgeable or empowered to make such changes to vary the content or process. Although they learned the theory behind differentiation from the professional development lectures, and offered after-school opportunities to extend learning for gifted pupils, more information and modelling of lessons was still needed for teachers to develop differentiated classroom lessons.

To empower teachers as per Fullan's Four Stage Model of Education Change Model (1993), teachers needed an opportunity to take risks and to try out new ideas in a supportive environment without fear of failure. It was not easy for Lithuanian teachers to change their perceptions, let alone their behaviour, after a professional career of teaching according to Communist methodologies, which sanctioned all teaching materials produced in Moscow. It seems that the extent to which the Case Study teachers may have changed their behaviour and attitude towards teaching could be partly due to their collaboration with other teachers, parents, and gifted pupils in the nomination process. Certainly they assumed a leadership role as 'change agents'. Case Study School teachers became role models for teachers from other Kaunas regional schools who travelled to Case Study School to observe the implementation process in action and to collaborate with Case Study School teachers on how to meet the needs of gifted pupils in the classroom through differentiation.

However, because teachers' attitudes and beliefs change slowly, they seldom implement someone else's reform (Budiene, 2001). As proposed by Fullan's Model (1993), time to reflect can encourage and empower teachers to assume ownership. Therefore, it was important for the researcher to provide Lithuanian teachers with time to reflect upon their teaching practices and to provide them with opportunities to share their insights with colleagues. Importantly, teachers at Case Study School who attended the professional development program supported each other's efforts by sharing their classroom successes with other teachers, parents, and students. Zogla (1998) stresses both reflection and self-

evaluation as important steps in professional development. These steps suggest a direction for future professional development in gifted education in Lithuania.

6.3 Limitations of the Research

It is important to consider validity in qualitative research, and to examine strategies that lead to the success of developing maximum validity. One possible threat to validity in a study is researcher bias (Greene, 1994). In this study, the researcher was invited to present the fourth in a series of six seminars based upon the researcher's prior work training teachers with the *American Professional Partnership with Lithuanian Education* (APPLE) during the post-independence period of Lithuania's educational reform. Presumably although Lithuanian teachers attended one or more of the three previous professional development seminars at Kaunas Technological University, the fourth seminar presented additional information about giftedness that was new to many of them. Pre-test sensitisation (external validity of a pre-test introducing vocabulary) could have been a deciding factor for teachers who participated in both pre- and post-surveys. As a source of 'silent evidence' it was not known whether Lithuanian teachers were self-selected to attend the professional development training because they were interested in gifted education or if they attended because of an administrative directive. The participants may have been more responsive to the topic of giftedness during the post-test since time had lapsed and they had opportunities to reflect upon their learning and to discuss ideas with colleagues at their school. Or, they may have been more receptive simply because someone was taking interest in what they were trying to accomplish. North American pedagogical thinking about gifted education, which was presented during the lectures, may now have begun to 'fall into place to begin and make sense' to the participants, thus bringing about a change in their thinking.

Validity involves the extent to which the results of the research can be applied. When several treatments are applied at the same time, multiple-treatment interference (catalyst effect) makes it difficult to determine the effectiveness of each treatment. Thirty-three schools in the Kaunas region sent teachers to participate in the professional development programme. It is plausible that some

teachers were motivated primarily because they would obtain professional credits, which can be because not all ninety-three Lithuanian teachers responded to completing the pre-survey at the professional development programme.

One of the greatest problems was the lack of participation by some of the teacher participants. Although responses to pre-survey responses were fair (76 of the 93 teachers), post-surveys revealed that less than half (43) were completed. Apparently, many teachers left the seminar as soon as they received their professional development credit from Kaunas Technological University after the morning session on the last day. Those teachers did not attend the final workshop during which teachers completed post-surveys and shared results from their group work. Thus, it was challenging for the researcher to get a full commitment to the timeline needed to complete the post-survey. Sign-out sheets evidenced that 52 (56%) of Lithuanian teachers stayed, and 41 teachers left early. Therefore, post-survey results represented 18 of 33 Kaunas regional schools. It was unknown if the thinking of those teachers who attended the final workshop and completed post-surveys was representative of the thinking of the teachers who had left. It was also unknown if all pre- and post-surveys were collected and given to the researcher. Obviously, such an imbalance in numbers of completed post-surveys impacted the analysis of the data.

Mind Mapping raised the question of bias in the process of coding the outcomes of the data; thus, *NVivo* was selected as a method of analysing qualitative data and coding associated with grounded theory. This additional analysis of the data allowed for a re-examination of the findings in a new light to validate the interpretations produced by *Mind Mapping*. Although *Mind Mapping* and *NVivo* revealed a similar analysis, *NVivo* produced more compact categories. Descriptive validity was an effective strategy employed throughout the study. The researcher consistently conferred with the interpreter on events, behaviours, and outcomes of the research to verify and validate information.

The pre-and post-survey data were transcribed during three different time periods. The first transcription was completed independently by the researcher, an educator in gifted education who had familiarity and experience with the

Lithuanian educational system. To counteract possible bias, the data were transcribed a second time by the researcher with a certified public accountant, who offered objectivity and logical thinking to the process of classifying and clustering the categories of responses. A third transcription was made by *Datasense*, a company that specialises in qualitative analysis using *NVivo*. The clustered relationships of this new analysis of the data were, therefore, supported by triangulation. This procedure attempted to eliminate the possibility of incorrectly grouped data and reduced the possibility of such an occurrence.

In 2005, two years after the professional development programme, the researcher returned to Lithuania to examine the implementation of the gifted identification process at Case Study School. The elapsed time allowed for natural validity and for uncontrived events and settings that remained unchanged by the researcher's presence or behaviour. This authenticity encouraged the basis for a collective understanding of shaping teacher and student attitudes towards educational change.

In autumn of 2003, an unpredictable risk of mortality impacted the research conducted at Case Study School. This threat influenced the stability of the case study school environment and the ability of the screening committee to fully carry out implementation of the gifted identification process. The warning of probable closing of Case Study School because of a declining enrolment pervaded the school throughout the year and into the next academic year.

When Case Study School teachers realised they were being studied within the context of a case study school, they could have answered and behaved differently i.e. the way they would have behaved if they had not been studied. Therefore, research at Case Study School could have been affected by the 'Hawthorne Effect.' Even though these teachers faced constraints and limitations resulting from their concerns about job loss due to the school closing, they still continued to implement the gifted identification process and find appropriate ways of teaching gifted pupils. Selection of their school as a case study school for international research may have encouraged teachers in their

work and, subsequently, in their commitment to provide an equitable education for newly recognised gifted pupils.

It was evident from the interviews that Case Study School teachers felt a special sense of importance and accomplishment in their participation of the research. A local Kaunas newspaper, *Laikinoji Sostine* (24 February 2005), was contacted by a science teacher at Case Study School to report on the research study. The newspaper reporter wrote that an American scientist was conducting research to identify gifted pupils at the case study school, and teachers from eleven other schools, who also attended the professional development programme, were investigating ways to address the needs of gifted pupils. The article claimed gifted children needed to be encouraged and better understood by their parents and teachers.

A significant problem for the researcher throughout the study was a language barrier. This impediment required that discussions and materials be interpreted and translated from Lithuanian to English and vice-versa. The researcher was reliant upon an interpreter to communicate with Lithuanian educators, students, parents, administrators, and the Ministry of Education. Throughout the research study, feedback was sought from the interpreter to ensure cultural appropriateness of the work. Because the researcher did not speak Lithuanian, interviews and observations required additional time. This situation increased the complexity of the research because of the researcher's need to clarify content and ensure reliability and understanding of the information. During 2003 - 2005, networking and communication was best achieved by multiple visits to Lithuania instead of utilising only the telephone, email, or posted mail. Thus, it was critical that the translator was familiar with both the field of education and was computer-literate so that translated data could be emailed to the researcher.

The researcher resorted to both taping and journaling in addition to follow-up conversations with the interpreter to clarify all information. In-depth discussions and sharing of ideas, experiences, and needs were facilitated when participants spoke English. Often these conversations continued into the night. Thus, this was a sample of convenience in which the taped interviews were of volunteer

Lithuanian teachers who spoke English. The results from interviewees could represent a biased viewpoint because they felt positive about their learning experience and wanted to share information. It would have been a more balanced stance to have established a control group to obtain interviews with Lithuanian teachers who had not attended the professional development programme or who taught in a rural or minority-language school. Thus, it was impossible to know whether a threat was posed to the ecological validity of the findings and, if so, in consideration of the notion of silent evidence, to what extent the results of the study could be generalised to other schools in the country or to schools in other former Soviet Republics.

Observations in Case Study School classrooms occurred during the week of 21 February 2005, approximately one year after the professional development program. Unfortunately, the observations coincided with the semester's mid-term exam week. Therefore, it was difficult to obtain classroom release time for teachers to be interviewed since they were expected to teach regular classes and prepare students for exams. Because some of the interviews occurred during the school day, the interpreter assumed the responsibilities of classroom teachers whilst the researcher interviewed teachers and pupils. Subsequently, the mathematics, science, and two English teachers volunteered to stay after school for a group interview. Pupils in Grades 6 and 8 were interviewed between and during class periods.

Because the interpreter previously worked with the researcher in Lithuanian schools, an internal validity bias could have existed. It was possible that the interpreter protected the researcher from negative feedback. The interpreter assisted the researcher in networking, and, as directed by the researcher, organised interviews and classroom observations. Upon the researcher's request, the interpreter sent letters home with pupils to obtain permission for the participation of pupils, parents, and teachers in the study. The researcher also requested the assistance of interpreter to schedule meetings with the case study school psychologist and administrators in addition to those with the Director of General Education (Vilnius) and the Minister of Education (Kaunas).

Time (of interaction of measurement and treatment effect) was an external validity threat to be considered in this study. In 2002, information concerning legal documents of Lithuania's education system was either not published in English, nor was it made available on the Internet. Information about the law, *Education for All*, had to be secured directly from the Ministry in Vilnius and translated whilst still in a rough draft. This document could not be an official part of the research until it was officially approved almost a year later by the Minister of Education and Science and then sanctioned by Parliament (*Seimas*) to become public policy. During this time, little information about Lithuania was available on the Internet. The future intent of the *Education for All Law* was important because it was the first time that provisions in education were being made for all Lithuanian pupils and, specifically, included the gifted population.

The study raised the question of whether change in professional practice at one school can diffuse to another. One way for diffusion of ideas to happen could be to have teaching staff transfer to another school, such as what happened for Case Study School teachers when the school closed. In Chapter 5, Teacher D. (Interview. 23 February 2005) said that she would take her knowledge of the gifted identification process with her to a new school. Subsequently, in 2008 with the closing of Case Study School, Teacher D. became a consultant in gifted education so that she could share her knowledge with Lithuanian teachers in other schools (Telephone conversation. Teacher D. 29 July 2008).

In more typical circumstances not involving school closure, a downside to teachers transferring is that when the participant teachers who gained professional development experience or expertise in gifted education left, there was a discontinuation of expertise in the original school. A similar situation occurred in the UK. Because the *Excellence in the Cities Gifted Coordinators' Training Programme* was discontinued in 2006, when trained gifted coordinators (the sole dispersers of gifted education knowledge in their school) transferred out after that year, no replacement professional development programme was available. Without a replacement, the continuing success of a gifted program cannot necessarily be sustained.

Any effort with strong implications for the topic of gifted pupils will bring about supporters and critics. This study is no exception. External criticism is concerned with establishing the accuracy of the data. Because the researcher interpreted findings at different levels of inference, the findings may be able to offer implications for education of gifted children to other post-Soviet transitional economies. These findings suggest a direction for further studies of Lithuanian teachers' perceptions of giftedness and practices of teaching gifted pupils in Lithuanian schools.

6.4 Implications for the Future

Everything will be all right. The future is good. There are people [the Ministry] who are interested and know the situation is not good.

(Personal Conversation. Psychologist/Researcher. 03/02/03)

As a follow-up to the research, and to better understand Lithuanian teachers' perceptions of giftedness and the implementation of the gifted identification process at Case Study School, the researcher conducted a telephone interview with a member of the case study school screening committee (Interview. Teacher D. 7/07/07). Given the insights, it is worth presenting her comments in full:

As of 2007, there have been theoretical lectures given on gifted education throughout the country, but they do not offer practical strategies for working with the gifted or how to identify gifted pupils. Schools in the Kaunas region have separate and/or integrated programmes, but every school [has their own idea] for teaching gifted [children]. The centralised work [sharing by teachers] which continued for two years after the professional development [programme] at the Kaunas Teachers Centre stopped, and teachers work separately in their schools.

Our [Case Study] school will close in 2008 because the enrolment is down to 260. Parents [of students] went to court. Everything existed month by month. We tried to continue the [process of] identification of gifted pupils. Every teacher who taught gifted children [in mathematics, Lithuanian, and English] did separate things, although they tried to collaborate and integrate [their] work.

Gifted education is receiving a lot of publicity in [Lithuanian] television and journals. A movement is going on in our society to gain support from the Minister of Education. Recognition for funding gifted musicians and artists is underway. Currently, there is no national gifted identification system in place, and there are no national documents or identification procedures for teachers to follow. But, teachers can talk

about it openly because we have a professional vocabulary to discuss in it, [whereas] before we identified our gifted children by intuition. Teachers are [now] aware and share this information.

Since the closing of our [Case Study] school, I work part-time at a new secondary school to teach Grades 9 and 10. The new school asked me to lead the way with gifted work and integration. The school pays teachers for extra hours of work with gifted pupils. I also consult about gifted education with teachers from various schools. Gregartas, my past former gifted student whom you observed [in my Eighth Grade class] when he questioned if Lithuania had a gifted organisation, is now a student at Kaunas Technological University's *gymnasium*. He ranked second out of three hundred-fifty students.

It is the researcher's opinion that teacher-training (pre-service and in-service) preparation requirements of gifted education are essential for understanding how to identify gifted children by employing multiple criteria. Studying the social and emotional needs of gifted children is critical to the professional development of teachers. This knowledge is equally important in the education of parents of gifted children. Over the next decade, the extent to which the recommendations for teacher training in gifted education recommendations are implemented will strongly be influenced by the regulatory, political and institutional contexts of teacher preparation. Because accreditation, licensing, and certification are governed by the Lithuanian government rather than by the teaching profession, it will be important to involve Lithuanian teachers in the ongoing re-examination of curriculum in the field of gifted education. In addition, Lithuanian teachers of the gifted also require support from special resources, i.e., books and materials for classroom learning. For continual professional growth, it is necessary that Lithuanian teachers join a network for gifted education with international gifted organisations and publications. Parents of gifted children must also have access and availability to such materials and resources.

Ideally, gifted children must be presented with options appropriate for their level and rate of learning. Although research-based practice is critical when selecting a defensible programme, neither of these points surfaced from teacher responses at the professional development. Nevertheless, it is clear from the results of this professional development study that Lithuania's teachers, administrators, and the Ministry itself, have more to accomplish before determining which curricular

approaches and interventions best fit the requirements of its gifted children. On one hand, there are the national aspirations of the *Constructs of Education* and other recent policy documents; on the other, there is a pragmatic concern for Lithuania's leaders to seek ways to stop the potential 'brain drain' that would result if Lithuania's brightest youth continue to move to the West.

To this end, the gifted identification process needs to be inclusive so that underserved minorities, underachievers, and special needs pupils also are screened for giftedness. Because Lithuania's population includes many minority groups (e.g., Armenian, Belarusian, Estonian, Polish, Russian, Romanian, Tartars, and others), these pupils may require a differentiated screening process that addresses their specific gifts and talents. As argued in Chapter 1, it is important for Lithuania to adopt an international perspective. Hopefully this research may help Lithuanian teachers learn more about international practices and existing models of gifted education. Specifically, this research may encourage the Lithuanian Ministry to re-examine teacher certification and training in addition to developing a systematic identification process and specialised curriculum for educating the gifted. Recommendations of best practices from this research could be extended to other Eastern European countries of the former Soviet Union based upon evidence presented here. Further research may yield additional insight into the variety of global initiatives when developing a national infrastructure for gifted identification tools and educational programs. Teachers who develop a global outlook and differentiated strategies will be better prepared to work with gifted children in diverse educational settings. Results from this study could offer insights to other former Soviet countries engaged in educational reform, especially concerning gifted education. It could be helpful to other teachers of the gifted if Lithuanian teachers were able to explain their experiences of identifying and working with gifted children.

The research could also be of interest to other schools in Lithuania that are at risk of closing because of low enrolment. Case Study School may not be unique in its desire to continue addressing needs of gifted pupils. The findings of this research present a picture of what has occurred during one period of time, an

event that can contribute to the ongoing struggle of initial teacher education and governance of gifted education appropriate for the next generation of teachers in Lithuania.

The findings of this research encourage the basis of collective understanding of shaping teacher and student attitudes towards the identification and education of gifted children. The outcomes of this research are relevant to thinking about successful educational change in gifted education and could be of interest to academic researchers, teacher-educators, education policy makers, teachers and parents of the gifted, as well as gifted children in Lithuania. Limitations notwithstanding, this study has contributed to the development of systematic policies and procedures for the identification of gifted children in Kaunas. Findings from this research lead to further questions for future research in the identification and education of gifted children, and to implications for the future practice of gifted education in Lithuania.

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Appendix A

Appendix A provides a two-sided brochure of information in Lithuanian on the Kaunas Teachers Centre.

(Removed for copyright reasons)

(Removed for copyright reasons)

Appendix B

Appendix B is the invitation to the researcher to provide professional development in gifted education to Kaunas Regional teachers from Dean of the Faculty of Fundamental Sciences and the Director of the Institute of Educational Studies at Kaunas Technological University.

Monita Leavitt
70 Marvelwood Drive
New Haven, CT 06515
USA

Kaunas University of Technology
Faculty of Fundamental Sciences
Studentų g. 50, Kaunas
LT-3035, Lithuania
Tel. +370-7-451678,
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Kaunas University of Technology
Institute of Educational Studies
Donelaičio g. 20, Kaunas
LT-3031, Lithuania
Tel. +370-7-300130,
fax +370-7-300102

6 October 2000

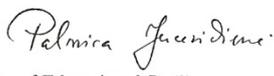
Dear Mrs. Monita Leavitt,

We are organizing series of special seminars on the education of gifted children in Lithuania. The seminars will be attended by the teachers and Master students in education. The significant event would be your coming and delivering a seminar at KUT. Your advanced experience in the field is very important for us.

Please, accept our wishes to have you at Kaunas University of Technology as our invitation, unfortunately, not supported by financial means because of a difficult Lithuanian higher education financial situation, we are not able to cover your travel and accommodation expenses.

Yours sincerely,


Vidmantas Pekarskas
Dean of the Faculty of Fundamental Sciences


Palmira Jucevičienė
Director of the Institute of Educational Studies

Appendix C

The researcher offered professional development programme in gifted education over a two-week period starting 29 January 2003. Three days of lectures and workshops were offered. Appendix C is a copy of the schedule sent to Kaunas Regional Schools to advertise the fourth (in a series of six) seminar, which was the first professional development initiative in gifted education in Lithuania. A copy is translated into Lithuanian.

Appendix C also provides a copy of the researcher's goals and objectives as advertised for the seminar.

Monita Leavitt
American Visiting Lecturer, Ph.D. Doctoral Student
Oxford Brookes University
Oxford, England
monital@aol.com

Interpreter: Laima Dainutiene
Translations by Regina Seskuviene

Schedule

“Developing the Gifts and Talents of All Students: Implications for Identifying Gifted Secondary Pupils in Lithuanian Classrooms Today”

January 29, 2003 - 3:00 p.m. Lecture
Kaunas Technological University *Gymnasium*

An international perspective will be offered giving an Australian overview of gifted education, supplemented with information from America and England. To appreciate and gain an understanding of giftedness, a broad definition will be introduced which features Gardner’s Theory of Multiple Intelligences (1983), Renzulli’s Three-Ring Concept of Giftedness (1977), and Sternberg’s Triarchic Theory of Intelligence (1985).

Workshop participants will have the opportunity to become part of the Action Research Team in Monita Leavitt’s research, “Change in the concept of giftedness of Lithuanian educators who work to develop an identification model of gifted pupils in Lithuania.” Participants will work in small groups to develop a list of characteristics of giftedness. They will work to create a process and tools to be used to identify gifted Lithuanian pupils in schools.

January 30, 2003 - Workshop #1
10:00 a.m. – 3:00 p.m., Room 232
Kaunas Technological University

10:00 – 12:00 a.m.

- Examination of the Renzulli Three-Ring Gifted Concept Model
- Creating a list of Characteristics of Gifted Lithuanian Pupils
- Examination of Renzulli’s Identification Tools

12:00 – 12:45 p.m.

- Lunch

12:45 – 2:00 p.m.

- Group Work: Creating a Model for Identifying Gifted Pupils in Lithuania

2:00 – 3:00 p.m.

- Discussion

- Filling out Research Survey

February 6, 2003 - Workshop #2
10:00 a.m. – 3:00 p.m.,
Kaunas Technological University *Gymnasium*

10:00 – 12:00 a.m.

- Introduction to Renzulli's Schoolwide Enrichment Model (SEM)
How to meet the needs of all students in the classroom with special implications for Gifted Pupils.

12:00 – 12:45 p.m.

- Lunch

12:45 – 2:00 p.m.

- Continuation and final edits of the Model for Identifying Gifted Pupils in Lithuania

2:00 – 3:00 p.m.

- Discussion
- Filling out Research Survey

KAUNO TECHNOLOGIJOS UNIVERSITETAS



FUNDAMENTALIŲ MOKSLŲ
FAKULTETAS
MATEMATINĖS SISTEMOTYROS
KATEDRA



SOCIALINIŲ MOKSLŲ FAKULTETAS
EDUKOLOGIJOS INSTITUTAS
EDUKACINĖS KOMPETENCIJOS CENTRAS

**Š.m. sausio 29 d. 15 val., sausio 30 d. 10 val. KTU
Fundamentaliųjų mokslų fakultete (Studentų g. 50, 232 a.) vyks
trijų dienų tęstinis seminaras**

**“Visų vaikų gabumų ugdymas: užsienio patirties taikymo
Lietuvoje galimybės“.
Seminarą ves Monita Leavitt (Oksfordo universitetas, Anglija).**

(Iš anglų kalbos bus verčiama)

**Trečioji seminaro diena – vasario 6 d. nuo 10 val. – vyks
KTU Gimnazijoje, Studentų g. 65.**

Sausio 29 d. kviečiame visus besidominčius vaikų gabumų ugdymu; sausio 30 d. ir vasario 6 d. ypač kviečiame tuos mokytojus, kurie norės kurti savo mokyklose vaikų gabumų identifikavimo ir ugdymo modelius bei dalyvauti ilgalaikiame projekte taikydami veiklos tyrimo metodą. Pageidautina, kad 30 ir 6 dienos seminaruose iš vienos mokyklos dalyvautų 2 – 3 mokytojai, turintys administracijos palaikymą numatoma tolesnei veiklai.

Norinčius dalyvauti **būtinai prašome užsiregistruoti iki sausio 27 d.** el.paštu kat1502@mf.ktu.lt arba telefonais: 8 – 37 – 451658; 8 – 37 – 300335.
Dalyviai gaus kvalifikacinius pažymėjimus.
3 dienų seminaro kaina 15 Lt.
Smulkesnę informaciją tel. 8-610-05154 teikia dr. B. Narkevičienė

Maloniai kviečiame dalyvauti

A Hands-On Workshop for Lithuanian Educators

Monita Leavitt
American Visiting Lecturer, Gifted Education Ph.D. Student
Oxford Brookes University
Oxford, England

**Developing the Gifts and Talents of All Students:
Implications for Identifying Gifted Secondary Pupils
in Lithuanian Classrooms Today**

*"A different way to learn is what the kids are calling for . . .
All of them are talking about how our one-size-fits-all delivery system –
which mandates that everyone learn the same thing at the same time,
no matter what their individual needs – has failed them."*

Seymour Sarason,
The Predictable Failure of Educational Reform

Intelligence is multifaceted. We think, learn and create in different ways. Matching how and what we learn with our particular intelligences affects the development of our potential (Carol Ann Tomlinson, The Differentiated Classroom, 1999).

To appreciate and gain an understanding of giftedness, a broad definition will be introduced which features Howard Gardner's Theory of Multiple Intelligence (Gardner, 2000), Joseph Renzulli's Three-Ring Conception of Giftedness Model (Renzulli, 1997), and Robert Sternberg's Triarchic Theory of Intelligence (Sternberg, 1985). In this workshop, participants will explore these views of thinking and will be empowered to develop their own definition of giftedness. They will be offered the opportunity to become part of an Action-Research Team to develop identification tools for secondary gifted pupils in Lithuania.

Objectives and Goals:

1. Introduce a broad definition of giftedness based on models by Joseph Renzulli, Howard Gardner and Robert Sternberg.

Goal A: Participants will develop a definition of giftedness by integrating their personal educational experiences with concepts from these models.

2. Examine a taxonomy of behavioral manifestations of giftedness based upon Renzulli's Three-Ring conception of Giftedness Model: Above Average Ability, Task Commitment, and Creativity.

Goal A: Participants will brainstorm and develop a list of behaviors that indicate giftedness in Lithuanian classrooms.

3. Match teaching and learning styles in order to improve learning for all pupils in their classrooms based upon Gardner's Multiple Intelligence Approach.

Goal A: Participants will take a Multiple Intelligence Survey test to analyze their own learning strengths and weaknesses with implications for teaching and learning styles.

4. Understand how to identify pupils for participation in Renzulli's Schoolwide Enrichment Model.

Goal A: Participants will discuss Renzulli's Schoolwide Enrichment Triad Interest-A-Lyzers and Nomination Forms.

Goal B: Participants will understand the important educational implications of offering Renzulli's Triad Activities: Type I (General Exploratory Activities), Type II (Group Training Activities), and Type III (Individual and Small Group Investigations of Real Problems) to stimulate and challenge learning for all pupils.

5. An Action-Research Team will be created reflecting representation of administrators and teachers from schools throughout Kaunas, Lithuania. This team will work to develop identification and evaluation tools for gifted secondary pupils in Lithuania.

Goal A: Workshop participants will be invited to join an Action Research Team, which will meet twice in February 2003, to develop identification and evaluation tools for gifted secondary pupils in Lithuania based upon their experience integrated with tools from the Renzulli models and knowledge gained from this workshop.

Goal B: The identification tools that the Action Research Team develops will be implemented in their respective schools by June 2003 to identify gifted secondary pupils in Lithuania.

Appendix D

Certificates of appreciation given by the researcher to the:

- Translator
- Interpreter
- Kaunas Technological University Associate Professor

Certificates for professional development credit were presented from Kaunas Technological University to the participants.

OXFORD
BROOKES
UNIVERSITY

Westminster Institute of Education

Harcourt Hill Campus Oxford OX2 9AT UK
t. +44 (0)1865 8496 f. +44 (0)1865 8660
jgeake@brookes.ac.uk
www.brookes.ac.uk

This is an official letter of commendation for

Ms Regina Seskuviene
Translator of English

in recognition of the voluntary work she is doing to help Monita Leavitt, PhD student at the Westminster Institute of Education, Oxford Brookes University, United Kingdom.

Ms Leavitt's doctoral research project is concerned with the professional development of teachers in Lithuania to provide education for academically gifted children.

Ms Seskuviene is serving as *translator* during Ms Leavitt's visit to Lithuania in January and February 2003.



Professor John Geake
Director of Doctoral Studies

28 January 2003



THE QUEEN'S
ANNIVERSARY PRIZES
FOR HIGHER AND FURTHER EDUCATION
2001

OXFORD
BROOKES
UNIVERSITY

Westminster Institute of Education

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t. +44 (0)1865 8496 f. +44 (0)1865 8660
jgeake@brookes.ac.uk
www.brookes.ac.uk

This is an official letter of commendation for

Ms Laima Dainutiene,
English teacher at Anima School in Kaunas,
Lithuania,

in recognition of the voluntary work she is doing to help Monita Leavitt, PhD student at the
Westminster Institute of Education, Oxford Brookes University, United Kingdom.

Ms Leavitt's doctoral research project is concerned with the professional development of teachers
in Lithuania to provide education for academically gifted children.

Ms Dainutiene is serving as *interpreter* during Ms Leavitt's visit to Lithuania in January and
February 2003.



Professor John Geake
Director of Doctoral Studies

28 January 2003



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jgeake@brookes.ac.uk
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This is an official letter of commendation for

Brone Narkeviciene
Professor of Mathematics Research
Kaunas Technological University
Lithuania

in recognition of the work she is doing to help Monita Leavitt, PhD student at the Westminster Institute of Education, Oxford Brookes University, United Kingdom.

Ms Leavitt's doctoral research project is concerned with the professional development of teachers in Lithuania to provide education for academically gifted children.

Professor Narkeviciene is serving as *research supervisor* during Ms Leavitt's visit to Lithuania in January and February 2003, by organising lectures and workshops, contacting schools, and liaising with the Lithuanian Ministry of Education.



Professor John Geake
Director of Doctoral Studies

28 January 2003



THE QUEEN'S
ANNIVERSARY PRIZES
FOR HIGHER AND FURTHER EDUCATION
2001



KTU Socialinių mokslų fakultetas
Edukologijos institutas
Edukacinės kompetencijos centras

PAŽYMĖJIMAS

Beata Labutytė

2003 m. sausio mėn. 21, 30 d. d. ir vasario 6 d.
dalyvavo 18 val. trukmės tęstiniame seminare

“Visų vaikų gabumų ugdymas: užsienio patirties taikymo Lietuvoje galimybės”,
skirtame švietimo įstaigų vadovams ir pedagogams.

Seminara vedė Monita Leavitt (Oksfordo universitetas, Anglija).

Doc. Raimonda Minkutė-Henrickson
KTU Socialinių mokslų fakulteto prodekanė

Prof. Palmira Juocevičienė
Edukologijos instituto direktorė

Doc. Nijolė Barauskienė
EKK direktorė



Registracijos Nr. 165230/06102

Appendix E

Definition of 'giftedness' that was agreed upon by Lithuanian teachers at the researcher's seminar February 2003:

Gabus vaikas ar jaunuolis -
 - pasižymintis aukštesniais negu nū-
 dautinai intelektualiais (bendraisiais
 ir / arba specialiaisiais) sugebėjimais
 kūrybiškumu, išsiskiriantis iš bendra-
 amžių, turintis tokias pačias laimiuo-
 ni sėkmes, išduodis originalumo ori-
 ginalumą ir produktyvumą.

A gifted child or teenager has
 higher than average intellectual (general
 and / or special) abilities, is creative,
 differs from his peers having the
 same training / educational ^{school environment} conditions
 in performing tasks in an original /
 and productive way.

30/01/2003 Definition of Giftedness
 compiled from group

Appendix F

Copies of different nomination forms that were created by Lithuanian teachers were modifications of the Renzulli Enrichment Triad Model. Both English and Lithuanian translations are included:

- Self-nomination (2)
- Teacher
- Peer

Note: The *Parents' Nomination Form* stated that the examples describing students' talents and abilities should be adapted to Lithuanian context and not translated just word for word from English. It should be formed by the age groups.

(Removed for copyright reasons)

Appendix G

Final Report submitted to the Minister of Education in Kaunas.

Lecturer: Monita Leavitt
American Visiting Lecturer, Ph.D. Doctoral Student
Oxford Brookes University
Oxford, England

Interpreter: Laima Dainutiene, Anima School, Kaunas
Translator: Regina Seskuviene, Kaunas
Organizer of Seminar: Brone Narkeviciene, Kaunas Technological University

07/02/03

“Developing the Gifts and Talents of All Students: Implications for Identifying Gifted Secondary Pupils in Lithuanian Classrooms Today”

Overview of the Seminar

On January 29, 2003, Monita Leavitt, American visiting lecturer and Ph.D. doctoral student from Oxford Brookes University in Oxford, England, presented a lecture on gifted education to Lithuanian educators from the Kaunas Region schools at Kaunas Technological University Faculty of the Fundamental Sciences. An international perspective was offered which gave an Australian overview of gifted education with current information from America and England. To appreciate and gain an understanding of giftedness, a broad definition was introduced which featured Gardner's Theory of Multiple Intelligences, Renzulli's Three-Ring Concept of Giftedness, and Sternberg's Triarchic Theory of Intelligence.

Ninety ^{three} educators, mostly teachers from schools in the Kaunas Region, participated in the seminar. Many schools sent small groups of teachers. This was important in order to ensure the success of communicating and sharing the information with other teachers back at their schools.

The first ^{six}-hour teacher-training workshop was held at Kaunas University on January 30th. In this workshop, teachers worked to create a definition of giftedness and a list of characteristics that indicates gifted pupil's behavior. The teachers examined Renzulli's Three-Ring Gifted Concept Model and Renzulli's Identification Model. They worked in small groups to adapt the model's nomination forms (self, peer, parent and teacher) to meet their own needs in the classroom. The results were shared with the entire class at the end of the day.

The second five-hour teacher-training workshop was held at Kaunas Technological University Gymnasium on February 6th. During this workshop, Monita Leavitt spoke about her sixteen years of experience teaching gifted children in American using Renzulli's Schoolwide Enrichment Program (SEM). The teachers learned how to identify gifted pupils with this program and how to enrich learning for all children in the classroom with a focus on gifted pupils. They also learned the value of differentiating their curriculum through concept mapping and the use of pre assessment, process, and

evaluation. Management techniques, involving the Total Talent Portfolio, were discussed.

Outcomes

By attending the seminar, ninety-^{three} teachers from the Kaunas Regional Schools area gained knowledge in how to develop the gifts and talents of all students with implications for identifying gifted secondary pupils using Renzuill's Schoolwide Enrichment Model (SEM). The teachers received an official certificate of professional development towards teacher qualifications. They are ready to return to their schools to share specific information and ideas about how to identify and program for gifted pupils.

It was evident from the seminar discussions that Lithuanian teachers from Kaunas presently identify gifted pupils by intuition. They are not always confident of the accuracy or consistency of these identifications. A systematic way of identification is needed to document and give validity and credibility to the process.

The teachers already integrate competitions and project work to motive and interest gifted pupils in their classrooms. They offer leadership opportunities to students whom they consider to be gifted. The teachers try to take advantage of opportunities to do as much as they can for their pupils. This was considered to be difficult, however, without the resource of an organization in gifted education in Lithuanian. Teachers cannot readily find out the latest information or materials for teaching gifted pupils.

Many of the teachers in the seminar understand that gifted pupils have special needs, such as psychological and learning styles. They understand that it is important to have special programs or special teachers to address these needs appropriately in the schools. The teachers understand the value of teaching with a differentiated curriculum to meet the needs of all pupils in the classroom. It was felt that professional development in this area of gifted education was very important.

Recommendations

The following requests must be addressed before the needs of gifted pupils can be appropriately met in Lithuanian classrooms:

- a national identification system to identify gifted pupils that meets national standards
- a national gifted education program
- approval by the Ministry and the Department of Education for implementation of a national gifted identification and program system
- professional development for teachers of gifted pupils
- administrative support in gifted education
- funding support for gifted education (professional development, programs, materials, etc.)
- a national gifted organization
- gifted education to be viewed as a separate area in education

Appendix H

Example of the pre-survey for the professional development programme in gifted education.

PRE SURVEYS

Questions

1. Have you ever read or listened to the lectures about gifted children and giftedness?
 2. How do you understand the concept of "giftedness"?
 3. Think about one of your gifted learners. What qualities can he be characterized by?
 4. What methods can be used to identify gifted children?
 5. What- in your opinion- is the percent of gifted children at your school?
 6. What- in your opinion- specific requirements might gifted children have?
 7. Do teachers satisfy those requirements? If yes, then according to the scale 0-5 (when 0 is the lowest evaluation and 5- the highest) evaluate how successfully this is achieved. Give a brief description how this is accomplished. If no, so what should be changed in order to achieve this?
 8. What assistance does Lithuanian school need in order to identify gifted children and make syllabi for working with them?
 9. Has your understanding of gifted children changed having listened to the lecture and the seminars? Define, please.
1. No 2. Partially 3. Much 4. Very much

Answers

1

1. Yes
2. Ability to orient oneself in a new situation, master new information
3. The child grasps new teaching material very quickly, deals with assignments in a creative (original) way; is interested in other sources apart from textbooks
4. Give a piece of new teaching material and immediately present the assignments relative to new information, try to see how the child can use it;
5. 50%
6. While explaining a new subject matter, the children are willing to know everything in detail: what? why? how? that is why the teacher has to know a lot, prepare for the lesson extensively; his knowledge has to be deep
7. Yes Personally I am doing my best to consider these needs.
- (3) A teacher prepares additionally, is interested in a lot more things than he has to present for the children
8. Literature about gifted children and work with them is needed

2

1. Yes
2. Quick orientation, ability to single out essential, main points, diligence, curiosity
3. The child fulfils his assignments thoroughly, is interested in additional sources, orients oneself fast in varied situations, singles out essential points and is able to analyze them all by oneself
4. Observation, team-work, creative assignments, discussions
5. ~ 50%
6. Individual work is necessary, differentiation, possibilities to use newest technologies
7. Yes. According to the situation and existing conditions (material facilities) at school

Appendix I

Example of translated pre-survey results from participants #1 and #2 at the professional development programme. Translated results were e-mailed to the researcher by a faculty member of Kaunas Technological University who was fluent in English and Lithuanian, and familiar with the field of education.

Survey on Giftedness

Before we begin today's workshop, I would first like to complete a survey on your views about the nature of giftedness. Please respond in writing to the following questions:

1. *What does the term "giftedness" mean?*
 2. *Who are the gifted?*
 3. *What are they like? Identify a child in your school who you would consider to be gifted. What characteristics does that child exhibit?*
 4. *How can gifted pupils be identified?*
 5. *What percentage of pupils do you consider may be gifted in your school?*
 6. *Are we meeting the needs of our gifted pupils in Lithuanian classrooms today?*
 7. *If yes, on a scale of 0 to 5, 0 being not at all and 5 being high, please measure how successfully this is being done. Please write in what ways we can measure and/or see that success.*
 8. *If no, what changes do we need to make in order to have this happen?*
 9. *What kind of support is needed to identify and program for our gifted pupils in Lithuanian schools?*
-

Anketa

Oksfordo Brookes universiteto (Anglija) doktorantė ir lektorė Monita Leavitt atlieka mokslinį tiriamąjį darbą švietimo srityje apie gabijų moksleivių identifikaciją Lietuvos mokyklose.

Prašome atsakyti į pateiktus klausimus. Iš anksto dėkojame už Jūsų pagalbą. Anonimiškumą garantuojame.

1. Ar Jūs skaityti arba klausyti pasakojimų apie gabius vaikus ir jaunuolius? Taip / Ne

2. Ką Jums reiškia sąvoka "gabumai"? *Tai g. aukštesni nei vidutiniai galėjimai, atsiskleidžiantys per modulių rėžius, reiklus,*

3. Pagalvokite apie vieną savo mokyklos mokinį, kurį priskirtumėt gabiesiems. Kokiais savybėmis šis vaikas pasižymi? *logiški, mąstytojas, savarankiškumas, kryptingumas, smalsumas*

4. Kokius būdus galima panaudoti gabijų mokinių atpažinti? *aukštesni, mokytojų teigiamas atsiliepimai, bendraamžių ir patarimų indukcijos, nuomonė, akademiniai pasiekimai*

5. Kaip manot, kiek procentų gabijų mokinių galėtų būti jūsų mokykloje? *apie 8-10%*

6. Kaip manote, kokių specialiųjų poreikių turi gabieji mokiniai klasėje? *specialius politikus, bet daugiausiai gilesnių arba pr. platesnių programų*

7. Ar mokytojai ^{įsitenkina} atsižvelgia į tuos poreikius? *svarbūs ugdymo (u) formos*

Jeigu taip, tai pagal skalę nuo 0 iki 5 (kai 0 yra žemiausias vertinimas, o 5 – aukščiausias) įvertinkite, kaip sėkmingai tai yra pasiekama. Trumpai aprašykite, kaip tai yra atliekama. *palubulatyvas, pagilinta programa, projektai, laisvės ugdymas*

Jeigu ne, tai ką reikėtų keisti, kad šito pasiektume? *Trūkstama sistemų kūrimo*

8. Kokia Lietuvos mokyklai reikalinga pagalba gabijų vaikų atpažinimui ir programoms darbui su jais? *gabius vaikus pradžia pripažinti specialiuji poreikių ugdymu, tokiu kaip finansavimas, techn. ir žmogišk. išteklių integravimas. Dokumentų reikalingumą, apibūdinti gabius skaidius*

9. Ar parikerte Jūsų svetainės apie gabius vaikus, išklaunius pasikaitis ir seminarus? Prašau, apsiliepti

1 Ne 2 *2* 3 Daug 4 labai daug

Anketa

Oksfordo Brookes universiteto (Anglija) doktorantė ir lektorė Monita Leavitt atlieka mokslinį tiriamąjį darbą švietimo srityje apie gabiųjų moksleivių identifikaciją Lietuvos mokyklose.

Prašome atsakyti į pateiktus klausimus. Iš anksto dėkojame už Jūsų pagalbą. Anonimiškumą garantuojame.

1. Ar tello Jums skaityti arba klausyti pasakytų apie gabius vaikus ir gabumus? Taip / Ne
2. Ką Jums reiškia sąvoka "gabumai"?
3. Pagalvokite apie vieną savo mokyklos mokinį, kurį priskirtumėt gabiesiems. Kokiais savybėmis šis vaikas pasižymi?.....
4. Kokius būdus galima panaudoti gabių mokinių atpažinti?.....
5. Kaip manot, kiek procentų gabių mokinių galėtų būti jūsų mokykloj?.....
6. Kaip manote, kokių specialiųjų poreikių turi gabieji mokiniai klasėje?.....
7. Ar mokytojai atsižvelgia į tuos poreikius?

Jeigu **taip**, tai pagal skalę nuo 0 iki 5 (kai 0 yra žemiausias vertinimas, o 5 – aukščiausias) įvertinkite, kaip sėkmingai tai yra pasiekama. Trumpai aprašykite, kaip tai yra atliekama.....

Jeigu **ne**, tai ką reikėtų keisti, kad šito pasiektume?

8. Kokia Lietuvos mokyklai reikalinga pagalba gabiųjų vaikų atpažinimui ir programoms darbui su jais?.....

Appendix J

Mind Mapping Inspiration 7: Data includes frequency charts; *MindMaps*, and histograms of data from Q2-Q9.

Number of Pre-Surveys 76 **Number of Post Surveys** 43

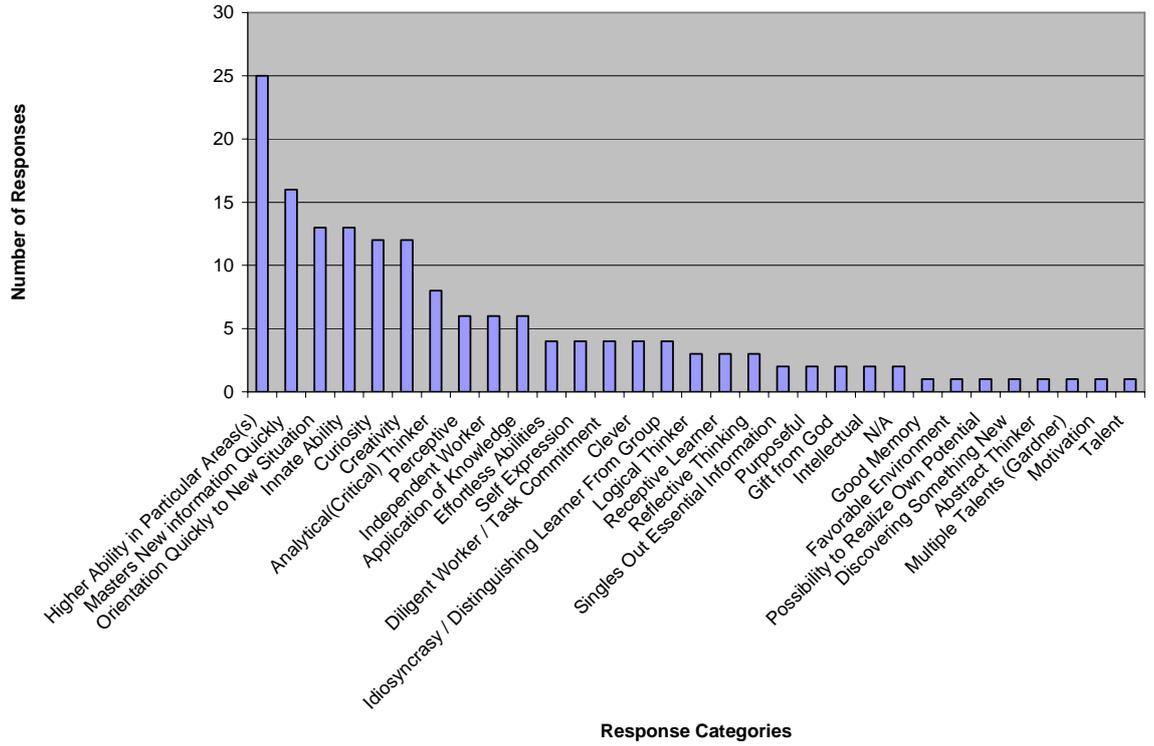
	Number Responses	%
Familiar with 'giftedness'?		
Yes	36	47%
No	37	49%
No Response	3	4%

What is "Giftedness?"

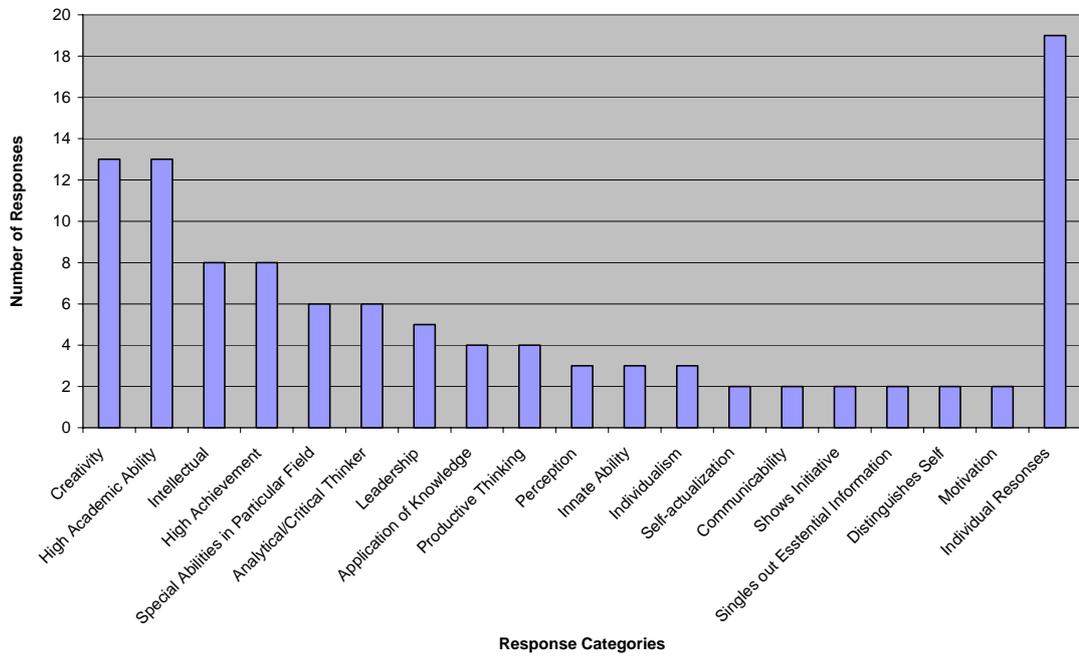
Responses	Number of Responses	%	Post Survey	Responses	Number of Responses	%
3,5,6,9,11,12,21,23,25,36,40,41,43,45,52,53,54,55,56,66,68,69,72,73,76	25	33%	Creativity	1,3,5,6,10,13,29,30,33,34,35,38,43	13	30%
1,13,14,15,18,19,21,29,31,33,38,44,46,51,62,65	16	21%	High Academic Ability	1,5,8,12,16,19,25,26,30,31,32,38,41	13	30%
1,2,13,15,20,24,35,42,46,50,51,53,68	13	17%	Intellectual	1,3,5,15,19,31,39,43	8	19%
3,16,22,25,48,49,54,58,59,61,64,66,75,	13	17%	High Achievement	1,4,8,9,10,39,41,24,	8	19%
2,7,10,11,14,20,26,29,60,65,67,75	12	16%	Special Abilities in Particular Field	4,10,15,19,43,32	6	14%
8,21,31,36,37,39,56,59,60,65,70,74	12	16%	Analytical/Critical Thinker	13,20,43,20,28,31	6	14%
7,13,23,30,31,57,68,75	8	11%	Leadership	1,6,15,19,30	5	12%
6,8,17,20,32,42	6	8%	Application of Knowledge	2,3,4,28	4	9%
7,10,23,26,31,59	6	8%	Productive Thinking	15,35,5,6,	4	9%
8,17,18,32,42,44	6	8%	Perception	2,28,43	3	7%
3,19,41,42	4	5%	Innate Ability	4,29,36	3	7%
24,26,27,75	4	5%	Individualism	11,22,35	3	7%
2,11,59,60	4	5%	Self-actualization	5,7	2	5%
16,37,50,54	4	5%	Communicability	6,43	2	5%
34,35,37,55	4	5%	Shows Initiative	13,20	2	5%
13,21,23,	3	4%	Singles out Essential Information	13,20	2	5%
42,50,51	3	4%	Distinguishes Self	18,23	2	5%
18,30,32	3	4%	Motivation	33,40	2	5%
2,33	2	3%	Individual Responses		19	44%

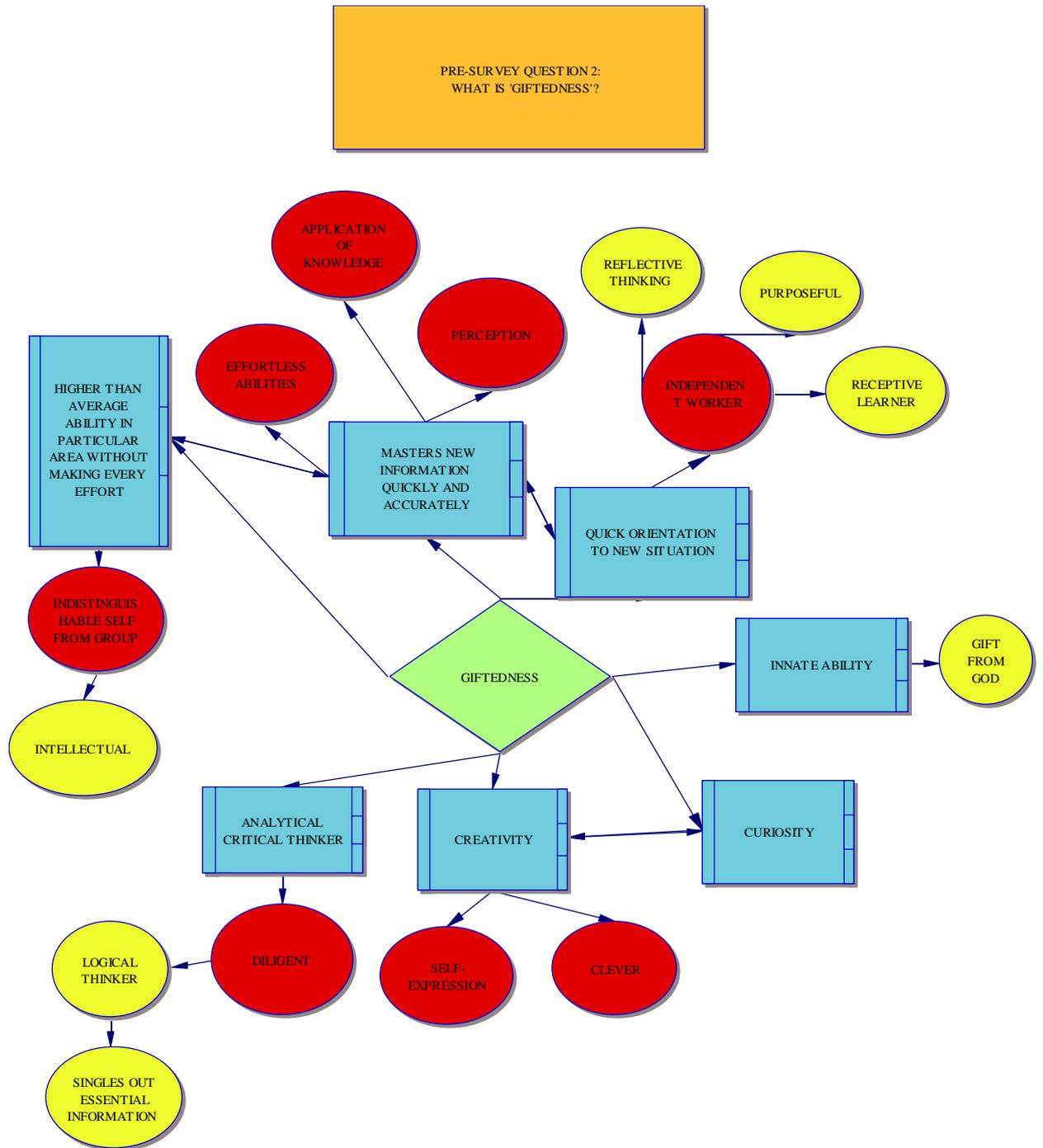
3,46	2	3%	Ability to Generalize	2,	1	2%
47,48	2	3%	Creation of God	29,	1	2%
70,74	2	3%	Abstract Thinker	2,	1	2%
28,63	2	3%	Logical Thinker	32,	1	2%
42	1	1%	IQ	17,	1	2%
3	1	1%	Influences Surroundings	18,	1	2%
3	1	1%	Requires Self-attention	18,	1	2%
30	1	1%	Cites Scientists' Gifted Evaluation Scales	4,	1	2%
46	1	1%	Find Place in Life Painlessly	21,	1	2%
54	1	1%	Perception Better than Others	24,	1	2%
56	1	1%	Psychic Ability	25,	1	2%
60	1	1%	Accurate, Quick Fulfilment Assignments	34,	1	2%
			Perfectionist	40,	1	2%
			Good Memory	34,	1	2%
			Universality	35,	1	2%
			Unlimitedness	35,	1	2%
			Flexibility	35,	1	2%
			Can't make Suitable Lithuanian Definition	37,	1	2%
			Fits everywhere	42,	1	2%

Q2: What is 'giftedness'? (Pre-Survey)



Q2: What is 'giftedness'? (Post-Survey)



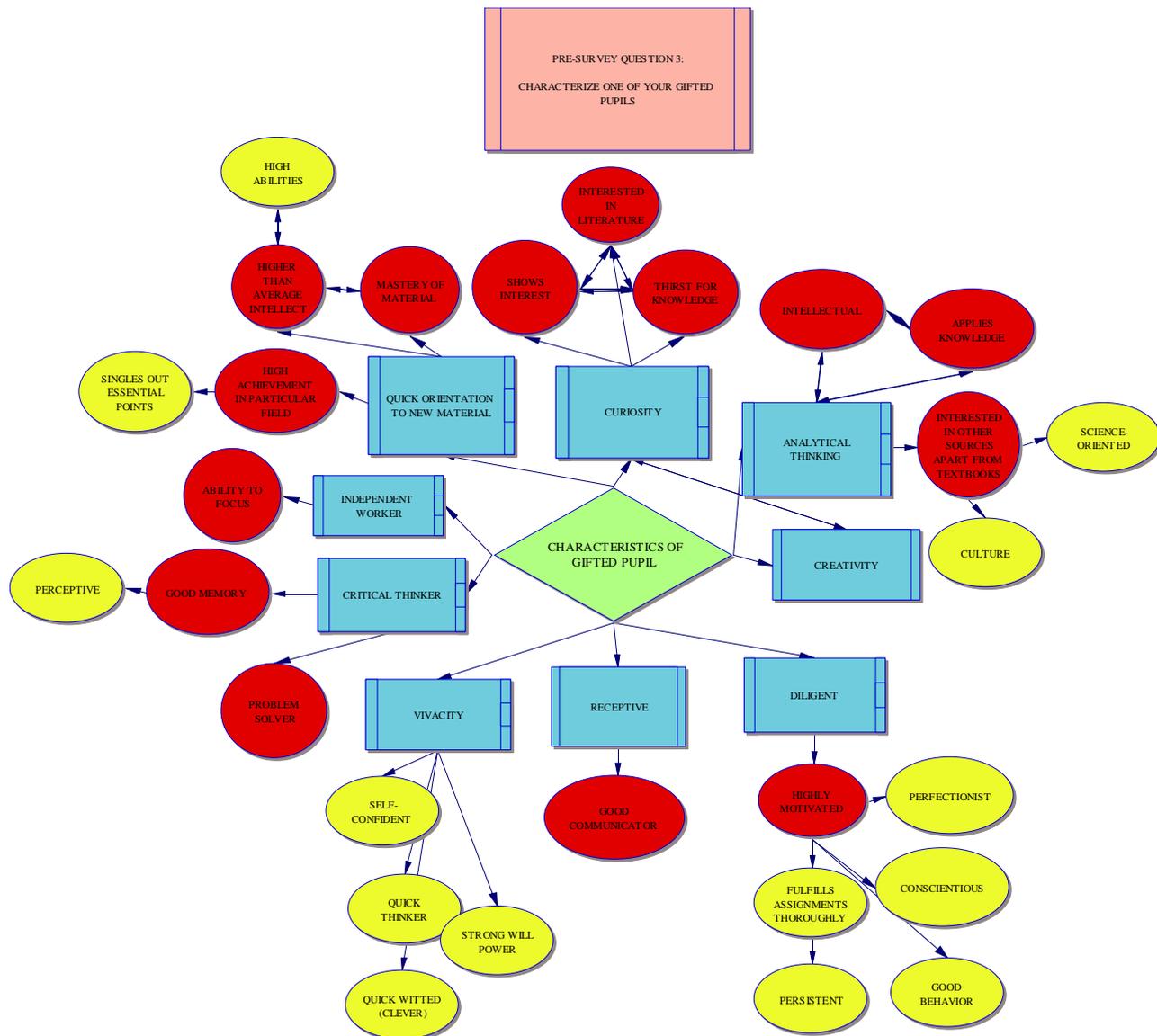




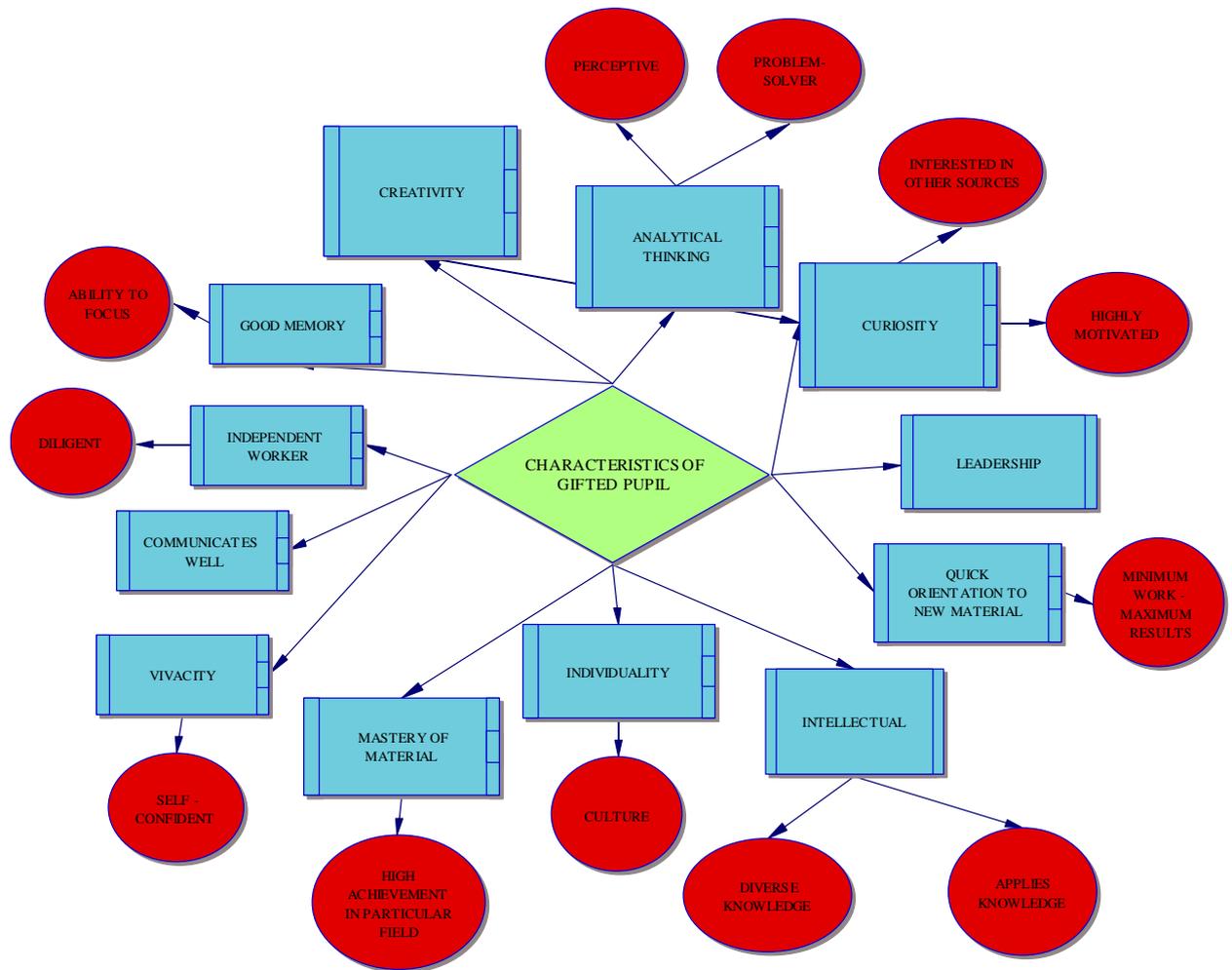
Characterise One of Your Gifted Pupils

Q3 Responses	Number of Responses	%	Q3 Post Survey	Responses
1,2,4,9,10,11,12,16,17,20,23,27,32,33,36,38,39,42,43,46,48,50,52,54,61,62,68,70,74	29	38%	Creativity	2,5,6,7,9,11,13,16,17,18,20,21,22,23,24,25,33,38,42,
4,5,11,15,22,26,28,29,30,34,36,37,40,45,49,52,53,54,57,60,66,71,73	23	30%	Analytical Thinking	1,4,5,7,8,12,13,16,23,24,26,30,31,34,37,42,
2,6,7,9,10,12,15,21,23,28,33,41,44,48,50,56,62,70,72	19	25%	Curiosity	1,2,3,8,9,12,14,16,17,22,25,26,33,42,
1,8,9,39,54,59,64,65,68,69,70,75,76	13	17%	Leadership	2,3,4,5,8,13,15,17,19,20,25,27,41,
3,5,7,13,27,35,36,41,45,51,59,63	12	16%	Quick Orientation to New Material	4,5,16,21,29,32,33,38,41,
18,19,20,21,27,30,37,42,43,49	10	13%	Intellectual	6,11,15,17,24,25,29,41,43,
3,4,18,37,45,52,63,64,66	9	12%	Individuality	9,12,13,19,20,23,26,35,
6,8,9,24,30,46,50,56,63	9	12%	Mastery of Material	7,19,23,24,34,35,37,
20,26,35,37,38,45,46,59,72	9	12%	Vivacity	1,10,14,21,27,30,40
10,26,28,34,36,60,72	7	9%	Communicability	10,28,33,36,38,40,43,
22,25,29,53,56,66,67	7	9%	Independent Worker	5,18,22,23,26,35,
13,20,21,63,64,65	6	8%	Good Memory	5,6,27,34,37,38,
23,31,34,57,64,72	6	8%	Diligent	2,17,18,27,
42,70,71,72,73,74	6	8%	Perceptive	7,21,22,28,
1,2,41,49,65	5	7%	Highly Motivated	8,11,30,31,
3,38,55,60,67	5	7%	Interested in Other Sources	14,25,27,32,
4,5,15,31,76	5	7%	High Achievement in Particular Field	15,31,41,
26,36,39,52,66	5	7%	Self Confident	22,33,
41,49,58,60,73	5	7%	Ability to Focus	40,43,
43,73,75,76,73	5	7%	Problem-Solver	9,34,
11,13,15,62	4	5%	Minimum Work - Maximum Results	41,43,
19,32,42,44	4	5%	Culture	15,39,
22,25,42,44	4	5%	Diverse Knowledge	3,36,
2,28,51	3	4%	Knowledge Application	24,28,
2,17,56	3	4%	Thirst for Knowledge	40,
16,37,40	3	4%	Stability, Consistent	19,
16,63,68	3	4%	Pursuit of Better knowledge	1,31,
31,34,36	3	4%	Literacy, literature Interest	39,
41,51,63	3	4%	Interested in Novelties	14,
14,54	2	3%	Quick Thinking	22,

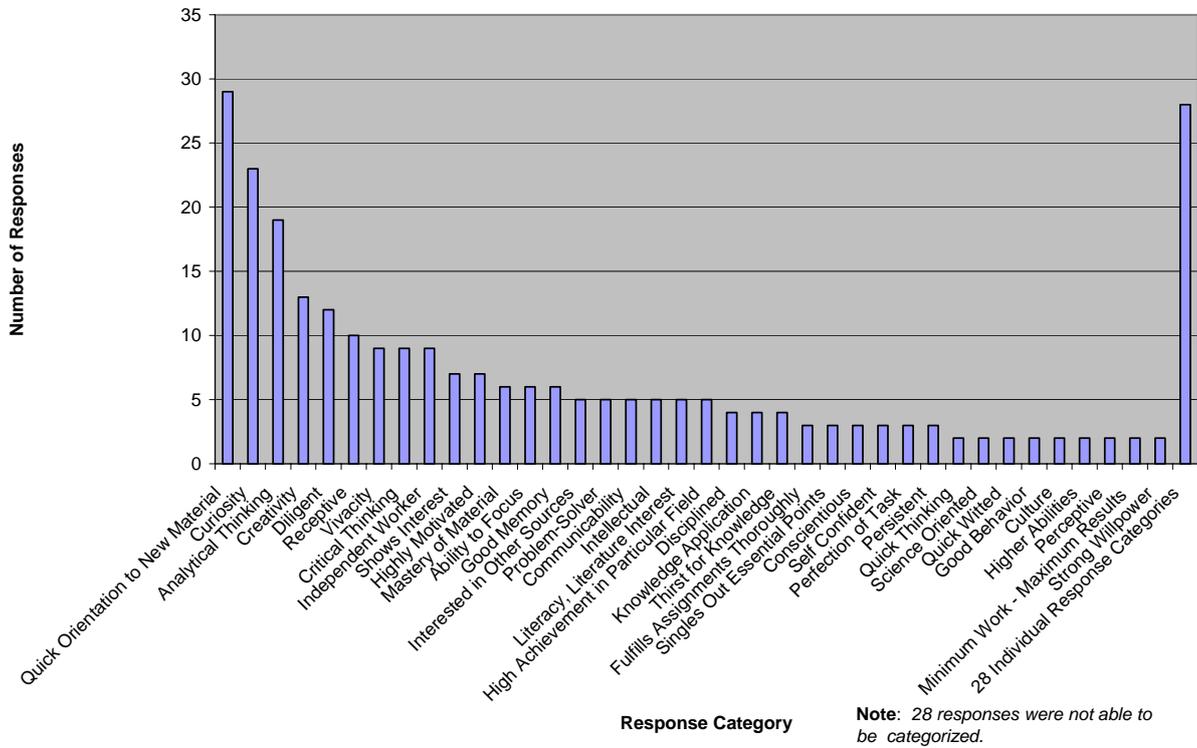
14,58	2	3%	Productive Thinking	15,
21,37	2	3%	Philosophical Thinker	43,
29,57	2	3%	Processes Much Information	4,
41,48	2	3%	Cleanliness	40,
41,69	2	3%	Musical Abilities	3,
42,52	2	3%	Organized	36,
42,47	2	3%	Good Behaviour	40,
53,63	2	3%	Persistent	25,
1,	28	37%	Able to Help Others	11,
3,	1	1%	Social Ability	36,
53,	1	1%		
11,	1	1%		
11,	1	1%		
11,	1	1%		
18,	1	1%		
18,	1	1%		
26,	1	1%		
34,	1	1%		
41,	1	1%		
40,	1	1%		
41,	1	1%		
45,	1	1%		
51,	1	1%		
53,	1	1%		
54,	1	1%		
55,	1	1%		
55	1	1%		
56	1	1%		
45	1	1%		
61	1	1%		
61	1	1%		
63	1	1%		
64	1	1%		
66	1	1%		
67	1	1%		
67	1	1%		



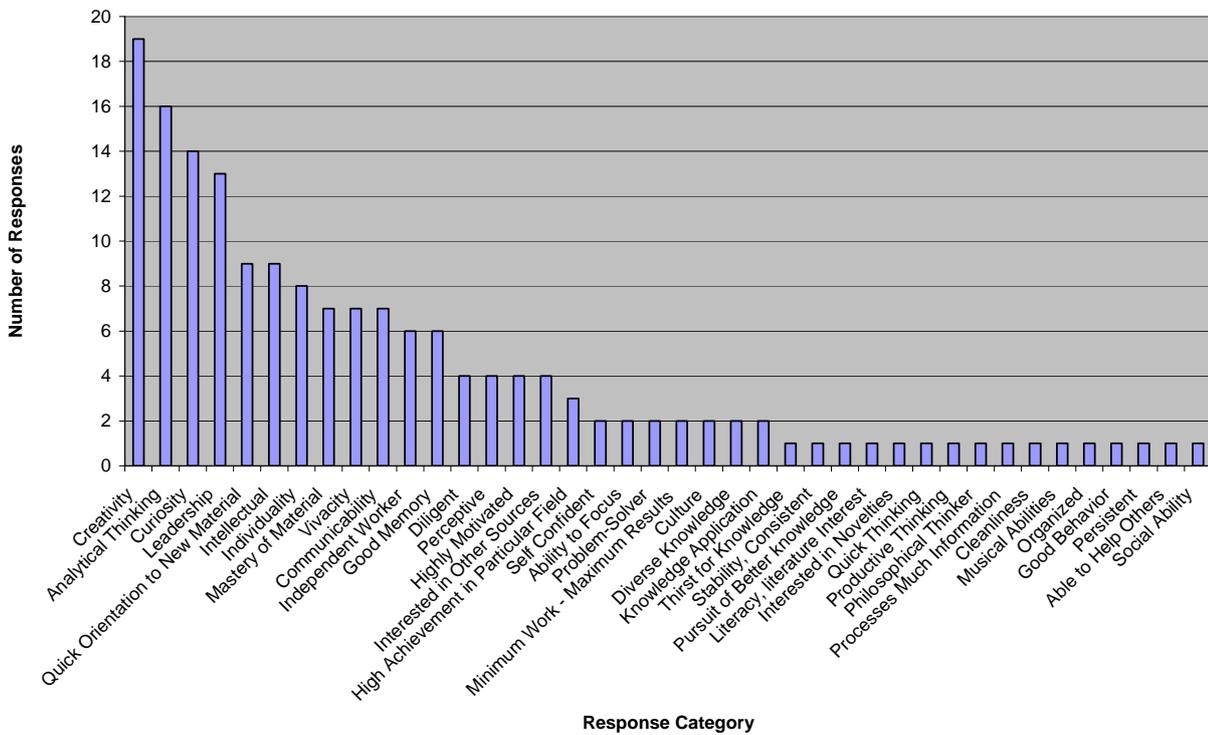
POST-SURVEY QUESTION 3:
CHARACTERIZE ONE OF YOUR GIFTED PUPILS



Q3 Characterize one of your gifted pupils (Pre-Survey)



Q3: Characterize one of your gifted pupils (Post-Survey)

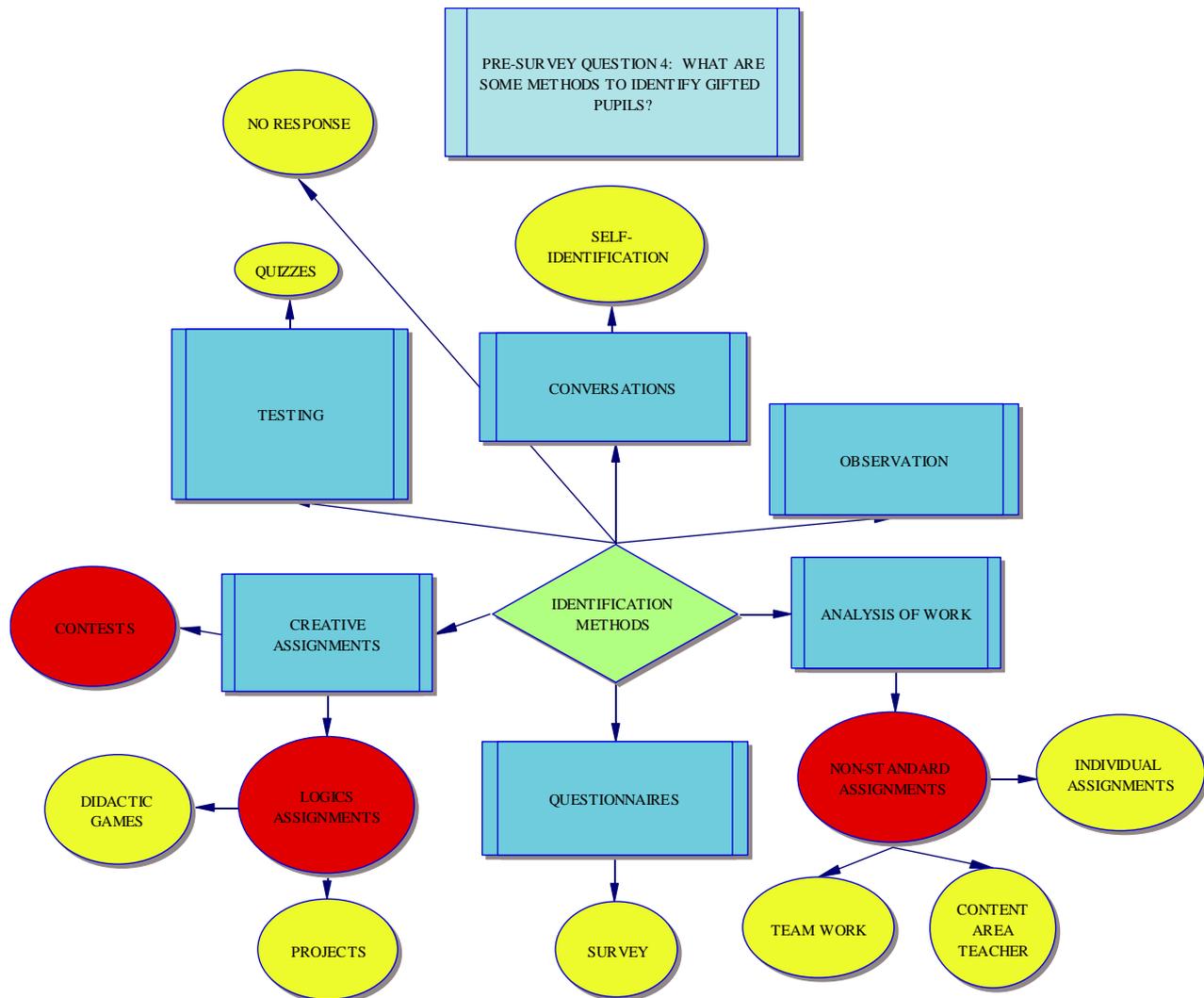


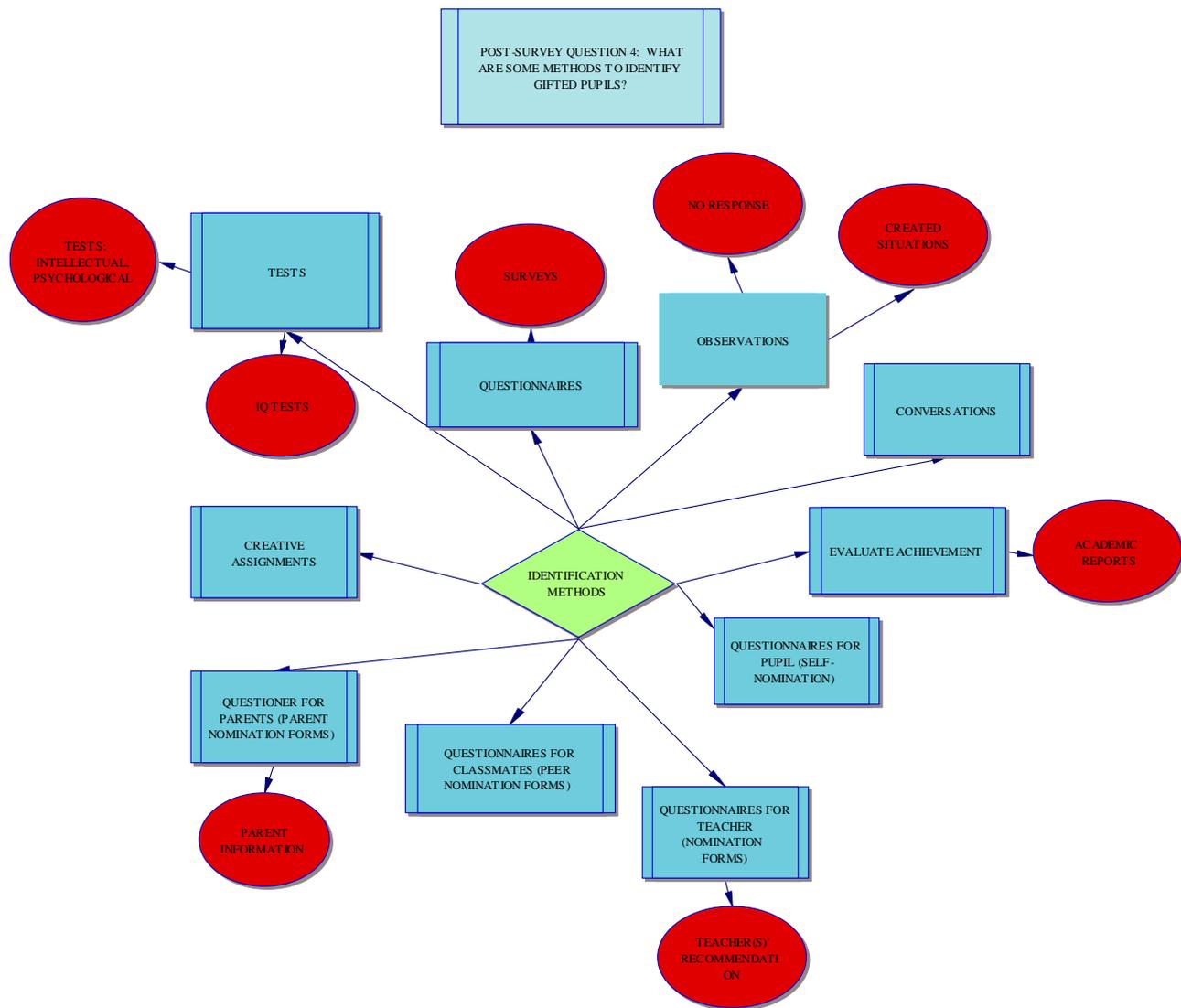
Q4

Methods to Identify Gifted Pupils

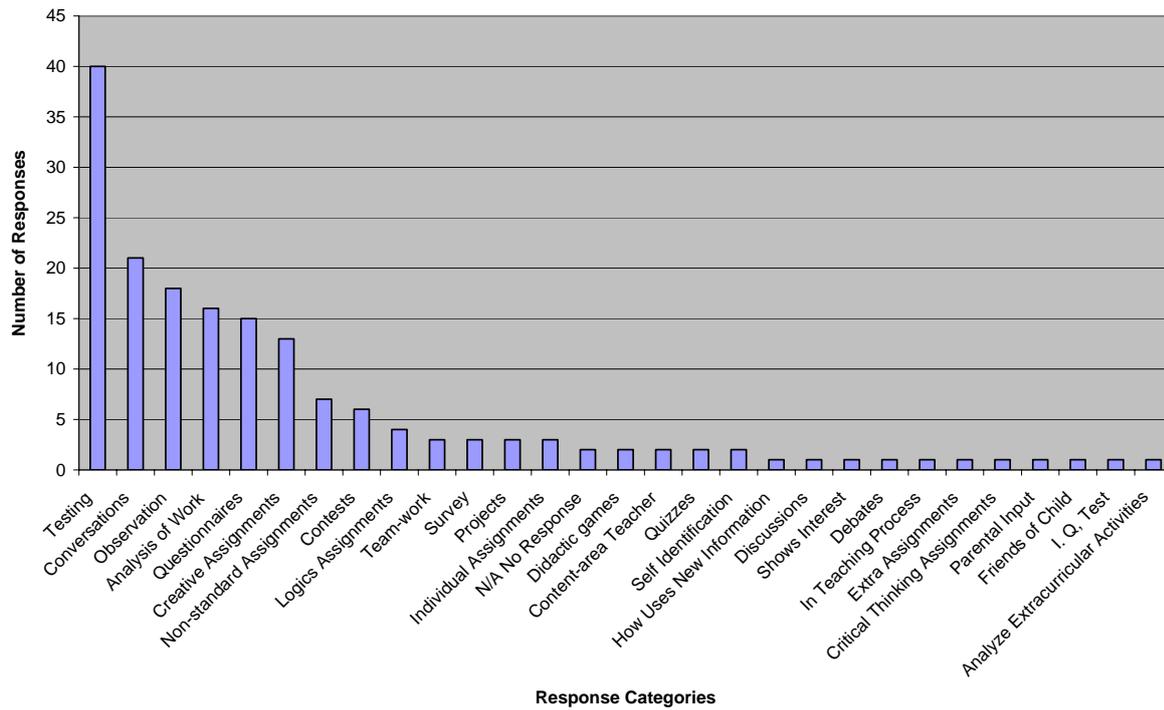
Pre Survey	Responses	Number of Responses	%	Post Survey	Responses
Testing	2,3,4,5,6,16,17,19,21,23,24,26,29,30,32,33,37,40,41,43,45,51,54,55,56,62,63,64,65,69,70,72,76,63,64,65,69,70,72,76,	40	53%	Tests	2,3,4,5,8,10,11,12,13,15,16,17,19,20,22,23,24,25,27,28,29,34,35,37,38,39,
Conversations	1,7,13,21,25,26,31,40,43,47,49,51,54,57,58,59,60,61,62,65,68	21	28%	Questionnaires	1,2,3,4,5,9,10,17,19,23,24,26,27,30,31,33,37
Observation	1,2,7,15,16,22,25,27,36,37,46,63,64,66,69,71,73,76	18	24%	Observation	1,5,9,11,12,23,27,30,31,34,41,42,43
Analysis of Work	2,7,9,20,27,28,31,37,49,57,58,59,63,66,68	16	21%	Conversations	4,5,8,9,10,11,14,28,29,33,39,43
Questionnaires	4,5,7,13,15,45,52,53,54,62,71,72,73,75,76	15	20%	Evaluate Achievement	3,12,24,26,29,33,35,36,41,
Creative Assignments	2,6,10,23,24,30,39,40,41,42,51,55,56,	13	17%	Questionnaires for the Child	14,17,16,25,26,32,35,40,41,
Non-standard Assignments	10,12,14,17,33,61,65,	7	9%	Questionnaires for the Teacher	14,17,18,25,32,40,42,
Contests	7,36,41,43,56,62,	6	8%	Questionnaires for Classmates	4,18,26,29,41,42,
Logics Assignments	38,42,50,74,	4	5%	Questionnaires for the Parents	14,17,25,32,40,41,
Team-work	1,9,40,	3	4%	Creative Assignments	1,14,16,22,38,
Survey	2,64,65,	3	4%	Parent Information	4,15,26,30,
Projects	8,26,41,	3	4%	Teacher's Recommendations	2,26,30,
Individual Assignments	45,71,73,	3	4%	Academic Reports	4,8,9,
N/A No Response	11,67,	2	3%	Tests - Intellectual, Psychological	18, 32, 6
Didactic games	18,19,	2	3%	Surveys	6,12,
Content-area Teacher	35,53,	2	3%	N/A No Response	7,21,
Quizzes	41,45,	2	3%	IQ Tests	19,25
Self Identification	44, 48	2	3%	Created Situations	28,38,
How Uses New Information	1,	1	1%	Differentiation of Work	1,

Discussions	1,	1	1%	Individual Assignments	1,
Shows Interest	22,	1	1%	Having Adequate Materials	1,
Debates	26,	1	1%	Having Adequate Facilities	1,
In Teaching Process	32,	1	1%	Varied Interests	36
Extra Assignments	34,	1	1%		
Critical Thinking Assignments	42,	1	1%		
Parental Input	53,	1	1%		
Friends of Child	53,	1	1%		
I. Q, Test	53,	1	1%		
Analyze Extracurricular Activities	63,	1	1%		

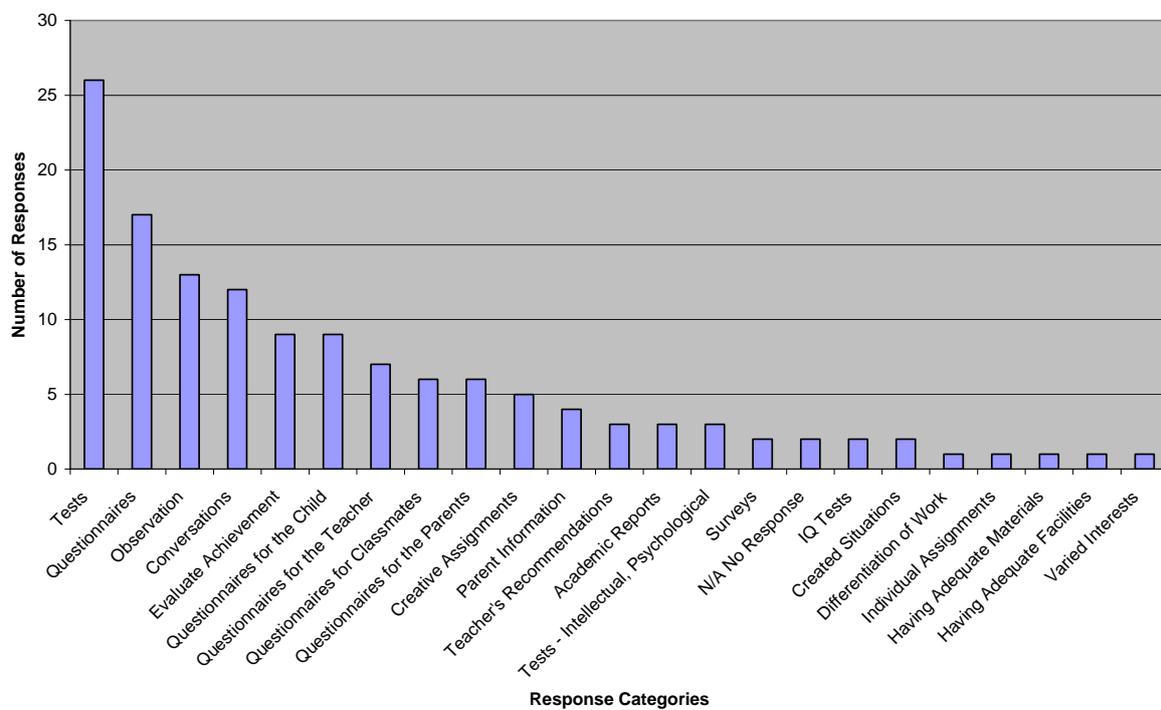




Q4: What are some methods to identify gifted pupils? (Pre-Survey)



Q4: What are some methods to identify gifted pupils? (Post-Survey)



Q 5 :What is the Percentage of Gifted Pupils in Your School

Post Survey

43
42
38

Respondent 36

By ID Number 35

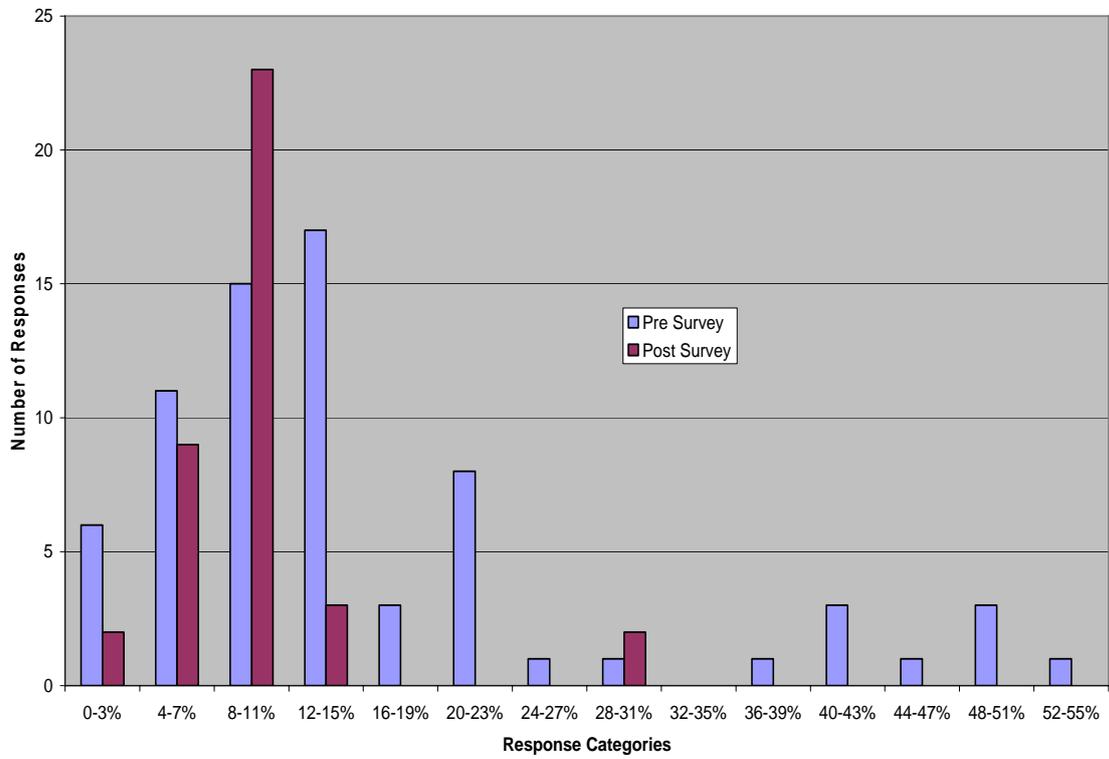
In Each Range 34

17 31
16 30
15 27
14 26
13 23
12 22
11 21
10 19
9 39 16
8 33 15
7 32 14
6 26 12
5 24 11
4 16 10
3 6 9 41
2 40 4 8 29 20
1 7 1 5 17 13

								28-	32-
								31%	35%
0-3%	4-7%	8-11%	12-15%	16-19%	20-23%	24-27%			
2	9	23	3	0	0	0		2	0

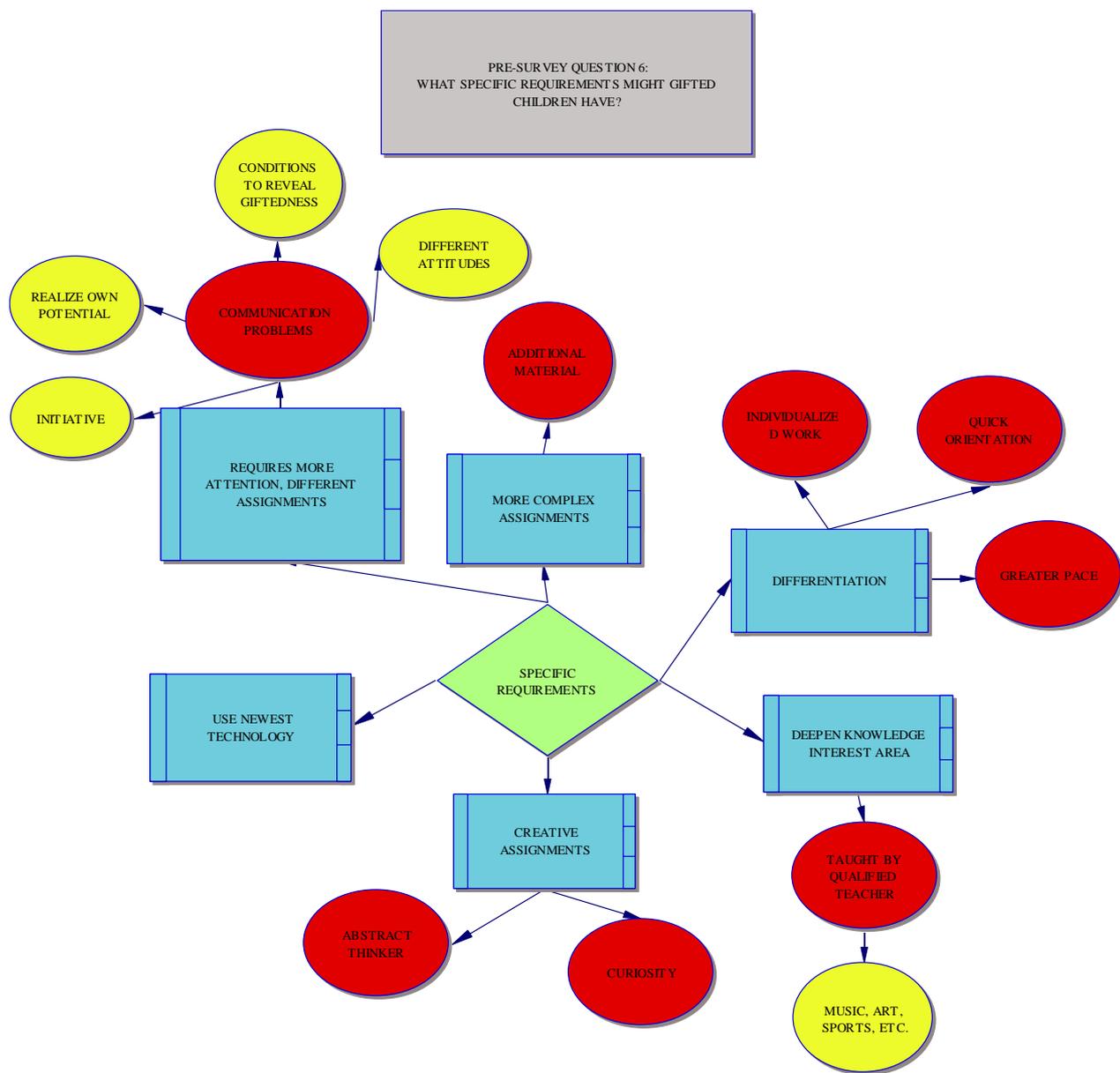
Percent of Gifted Pupils at Your School

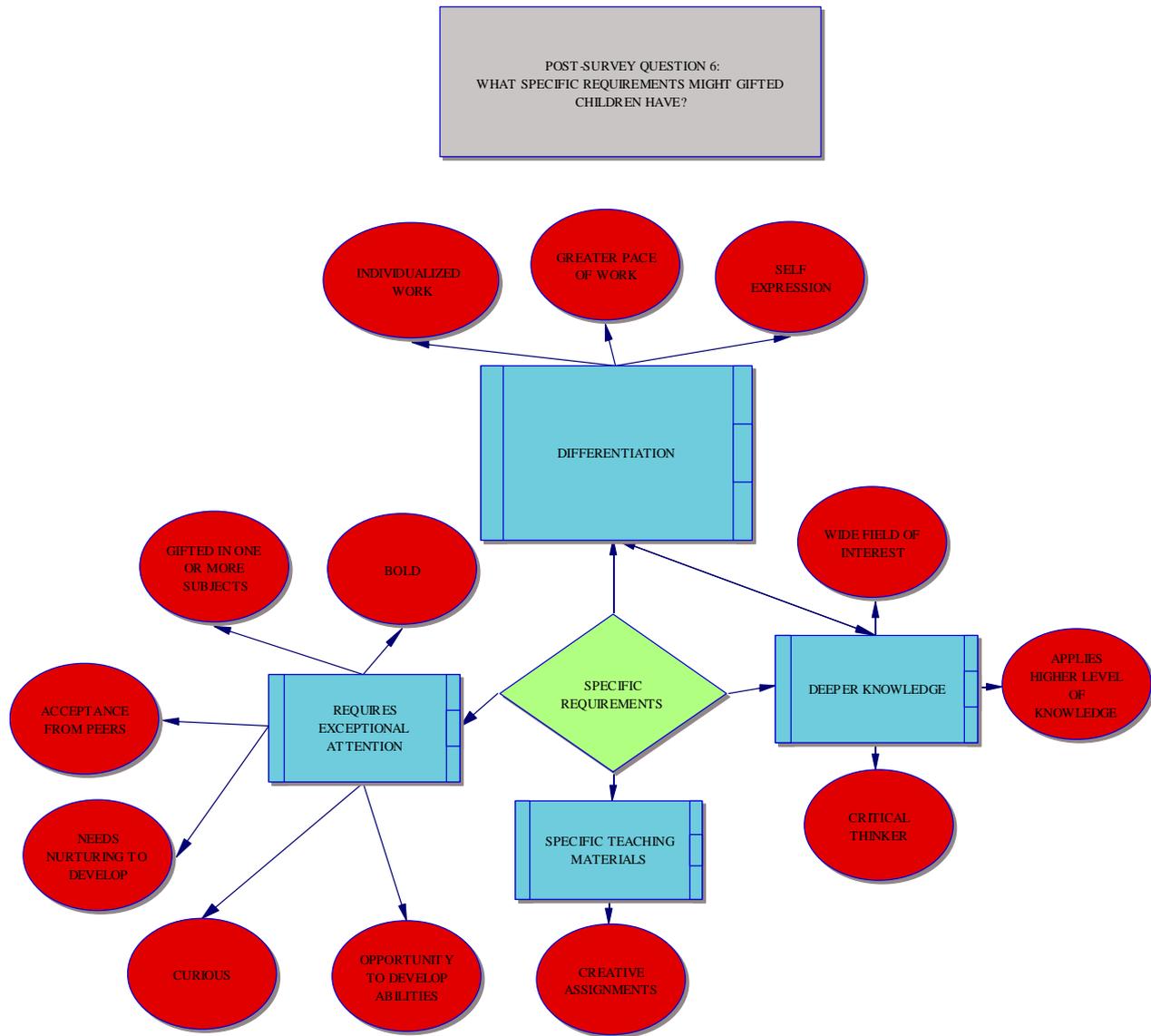
Q5: Percentage of Gifted Pupils in Your School



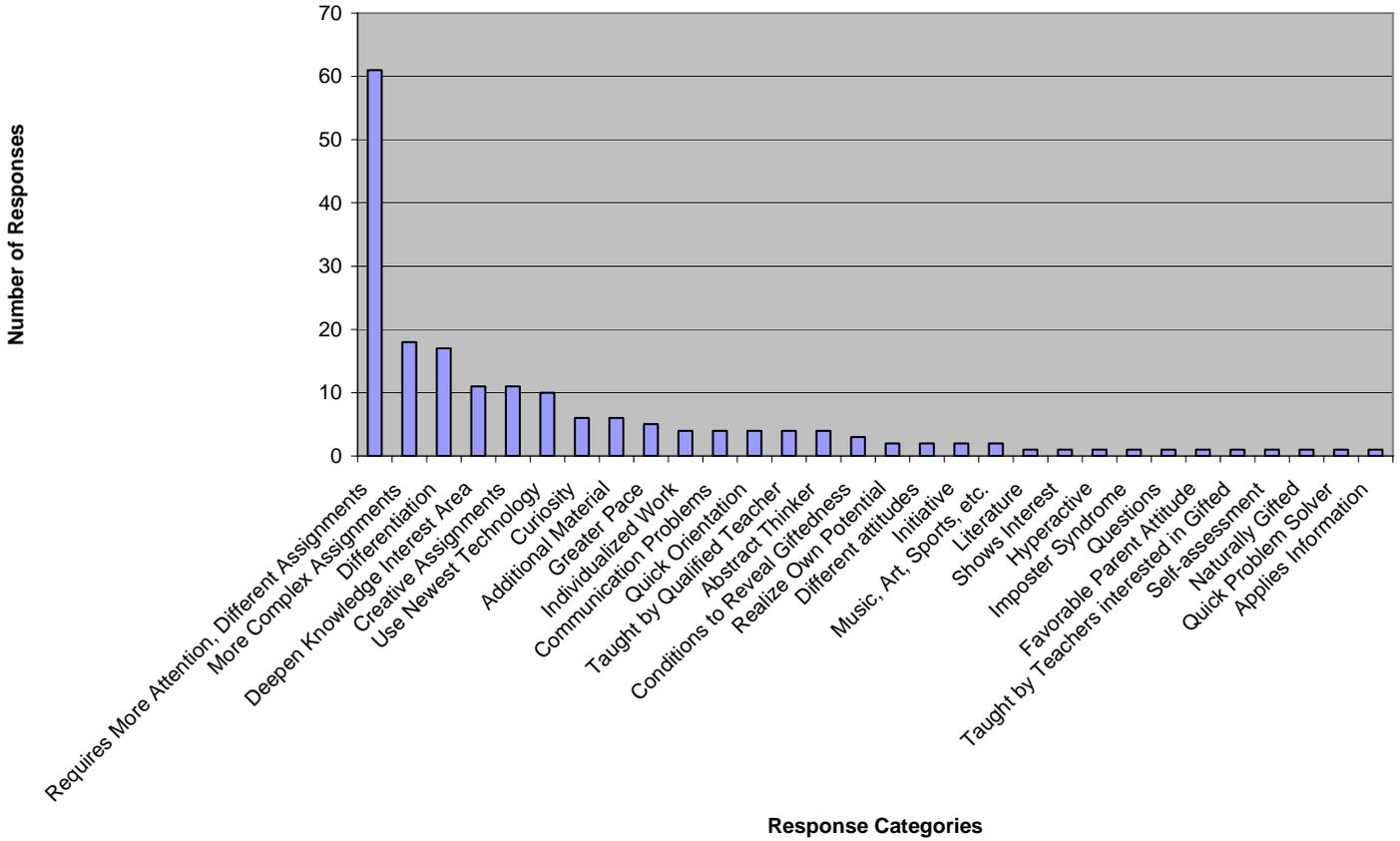
Q6							
Pre Survey	Responses	# Responses	%	Post Survey	Responses	# Responses	%
Requires More Attention, Different Assignments	1,2,4,5,6,8,9,10,17,18,19,20,21,22,23,24,25,26,27,28,29,30,33,34,32,35,38,37,39,40,41,42,43,44,45,46,52,53,55,57,58,59,60,61,63,64,65,66,67,68,69,70,71,72,73,11,13,14,74,75,76	61	80%	Differentiation	1,12,14,25,26,27,29,33,34,36,37,38,41,43	14	33%
More Complex Assignments	9,11,17,18,37,39,40,45,46,52,53,55,57,58,59,60,67,71,	18	24%	Deepen Knowledge	2,10,11,23,32,34,40,	7	16%
Differentiation	3,4,5,6,24,62,63,66,69,70,71,72,33,43,73,29,65	17	22%	Need Specific Teaching Materials	3,27,26,38,40,41,	6	14%
Deepen Knowledge Interest Area	14,16,17,27,28,44,56,61,62,73,74,	11	14%	Requires Exceptional Attention	7,19,24,27,35,41,	6	14%
Creative Assignments	9,26,48,52,35,59,63,39,48,48,62	11	14%	Wide Field of Interest	29,36,42,	3	7%
Use Newest Technology	2,10,11,16,31,42,61,65,73,74,	10	13%	Greater giftedness in 1 or More Subjects	15,39,5	3	7%
Curiosity	12,13,14,26,32,56,	6	8%	Acceptance from Peers	1,4,9,	3	7%
Additional Material	18,19,22,23,30,34,	6	8%	Individualized Work	1,41,	2	5%
Greater Pace	33,38,46,53,71,	5	7%	Applies Higher Level Knowledge	2,20,	2	5%
Individualized Work	2,8,40,60	4	5%	Curious	3,8,	2	5%
Communication Problems	20,21,22,25,	4	5%	Critical Thinking	13,20,	2	5%
Quick Orientation	47,50,64,75,	4	5%	Greater Pace of Work	6,30,	2	5%
Taught by Qualified Teacher	34,42,1, 18,	4	5%	Bold	8,22,	2	5%
Abstract Thinker	53,26, 47,50	4	5%	Self-expression	28,36,	2	5%
Conditions to Reveal Giftedness	69,76,7	3	4%	Opportunity Develop Abilities	30,31,	2	5%
Realize Own Potential	3,8,	2	3%	Needs Nurturing to Develop	7,35	2	5%
Different attitudes	30,63,	2	3%	Creative Assignments	18,43	2	5%
Initiative	33,71,	2	3%	Desire Implement their Goals	4,	1	2%
Music, Art, Sports, etc.	31,54	2	3%	Activates Class, Energizes Students	6,	1	2%
Literature	16,	1	1%	Create Chaos	6,	1	2%

Shows Interest	18,	1	1%	Instantiates	8,	1	2%
Hyperactive	28,	1	1%	Non-adaptability	9,	1	2%
Imposter Syndrome	25,	1	1%	Unwilling to be Different	9,	1	2%
Questions	32,	1	1%	Think They're Always Right	16,	1	2%
Favourable Parent Attitude	34,	1	1%	No Response	17,	1	2%
Taught by Teachers interested in Gifted	37,	1	1%	Quick Orientation	29,	1	2%
Self-assessment	44,	1	1%	N/A	21,	1	2%
Naturally Gifted	51,	1	1%	Too Active	22,	1	2%
Quick Problem Solver	64,	1	1%	Takes Initiative	8,	1	2%
Applies Information	75,	1	1%	Be Noticed	27,	1	2%
				Need Qualified Teachers	40,	1	2%

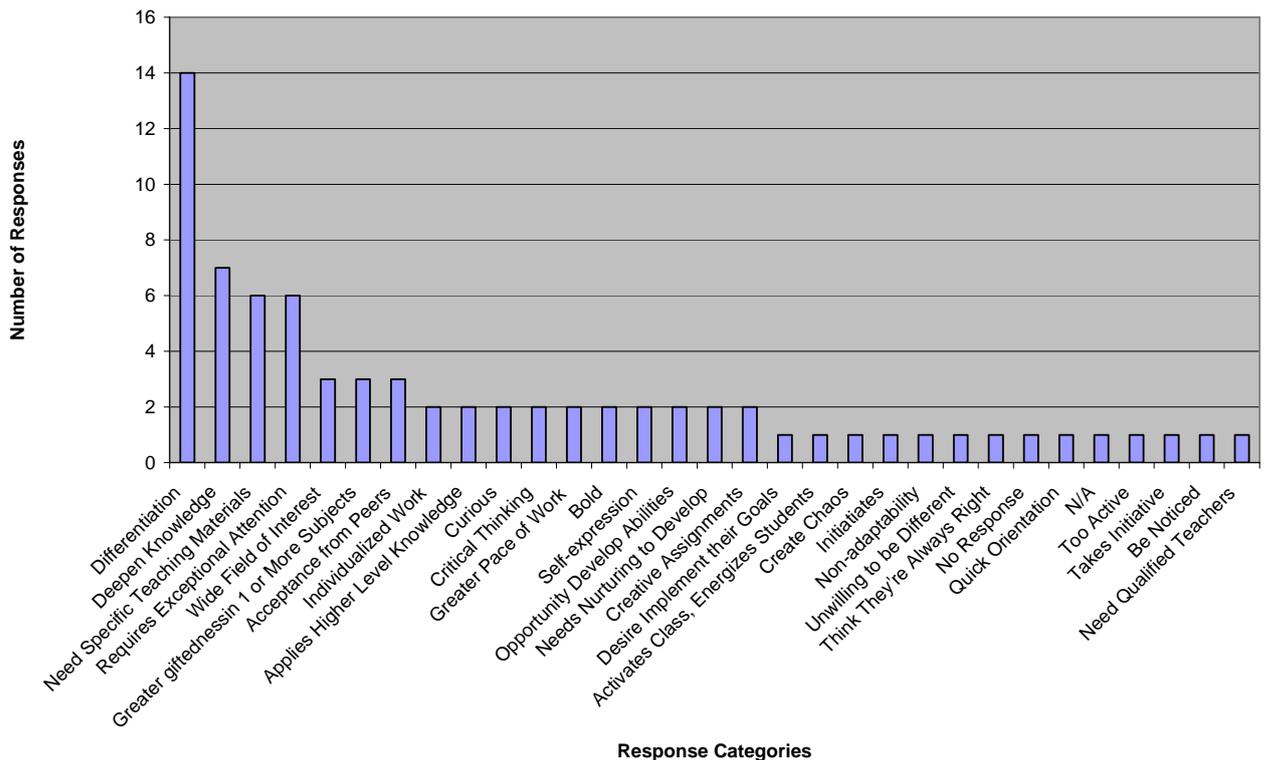




Q6: What specific requirements might gifted children have? (Pre-Survey)



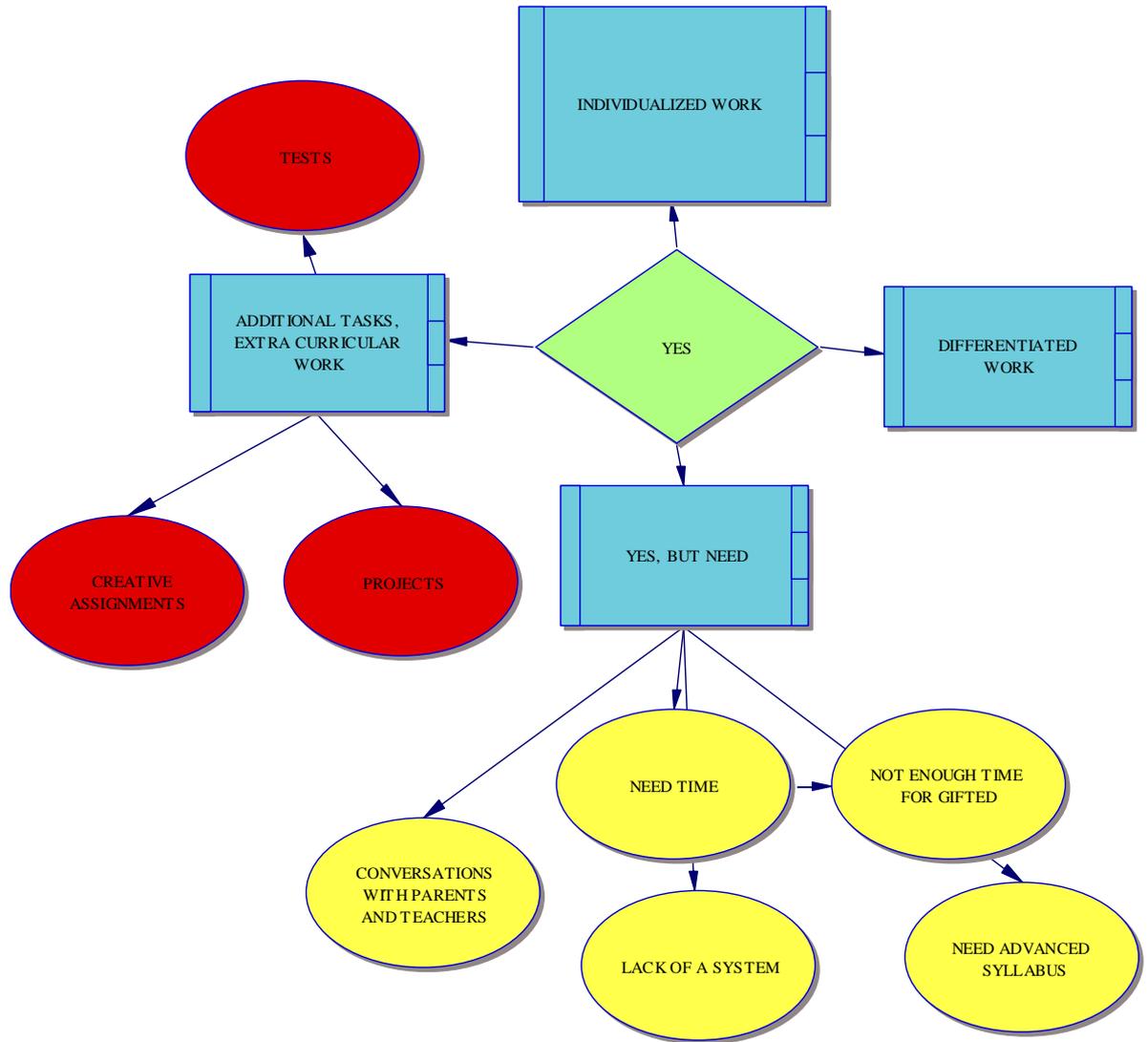
Q6: What specific requirements might gifted children have? (Post-Survey)



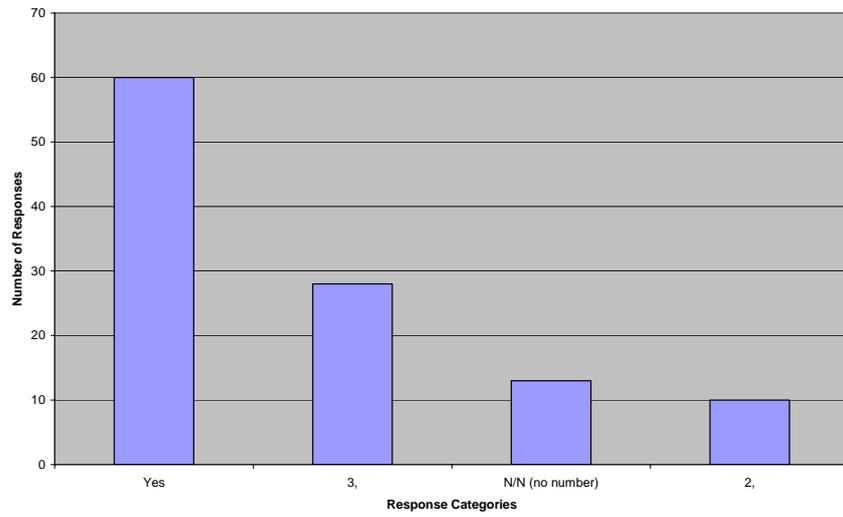


POST-SURVEY QUESTION 7:
DO TEACHERS SATISFY THESE REQUIREMENTS? IF YES,
IN WHAT WAYS?

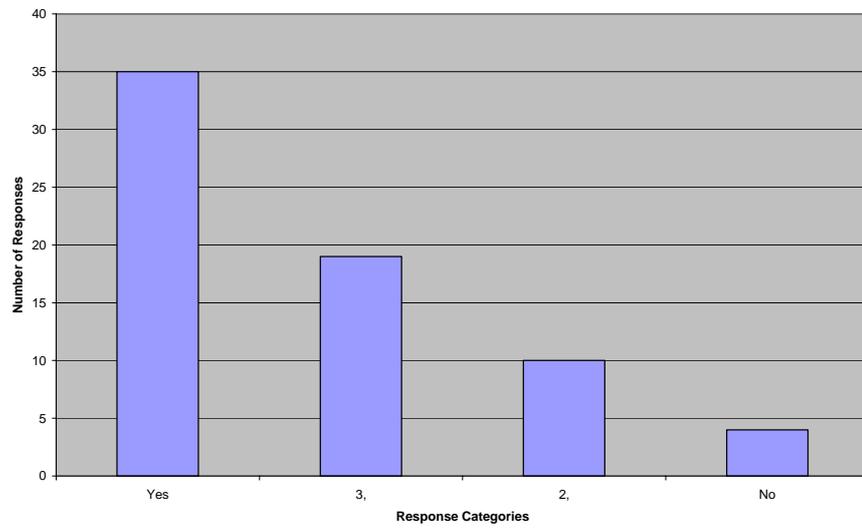
NOTE: ALTHOUGH TEACHERS RESPONDED YES, THEY ADDED WHAT THEY NEED TO
SATISFY THESE REQUIREMENTS



Q7: Do teachers satisfy these requirements for the gifted? (Pre-Survey)



Q7: Do teachers satisfy these requirements for the gifted? (Post-Survey)

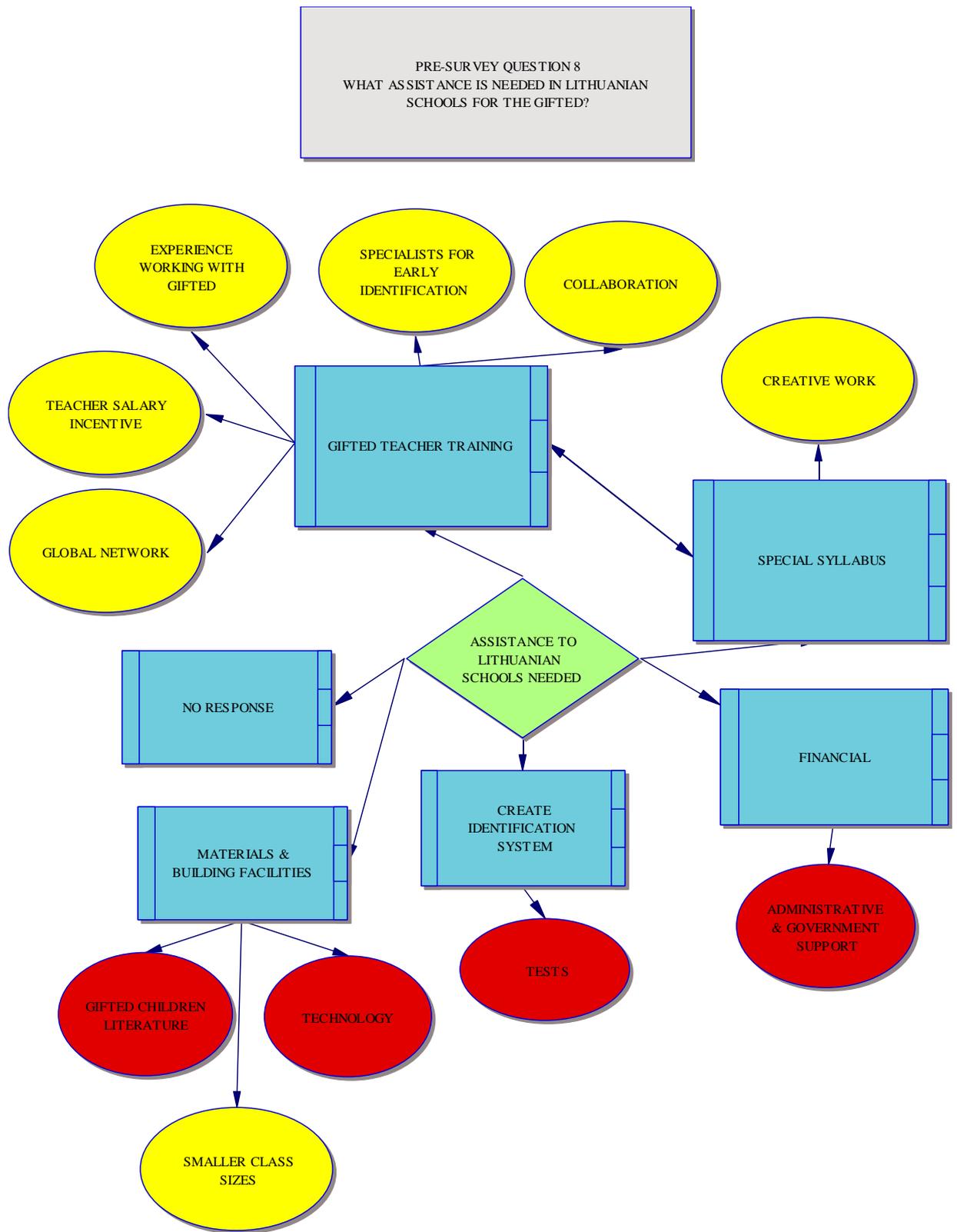


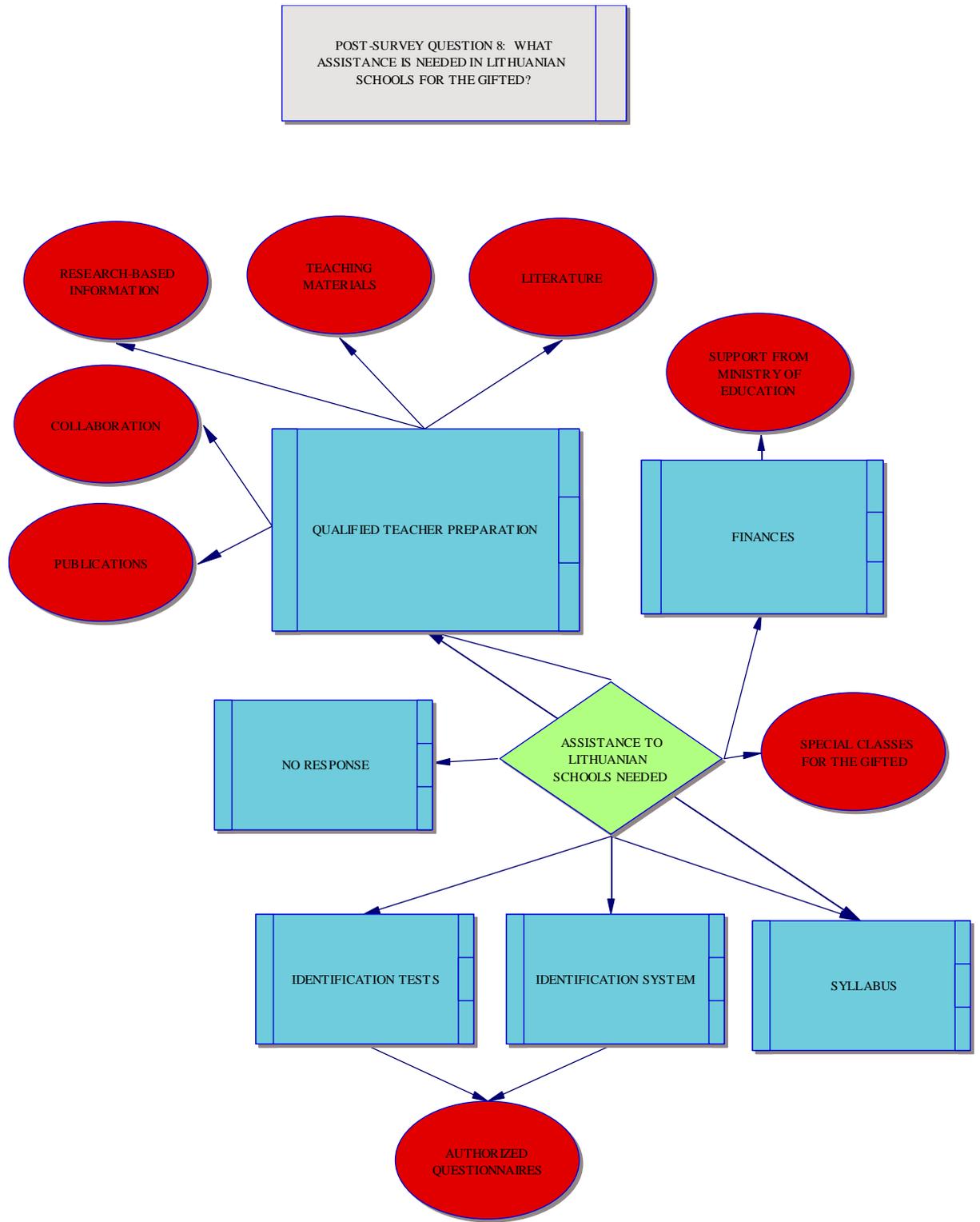
Q8 Assistance to Lithuanian Schools Needed

Q8 What Assistance to Lithuanian Schools Needed? (Post Survey)

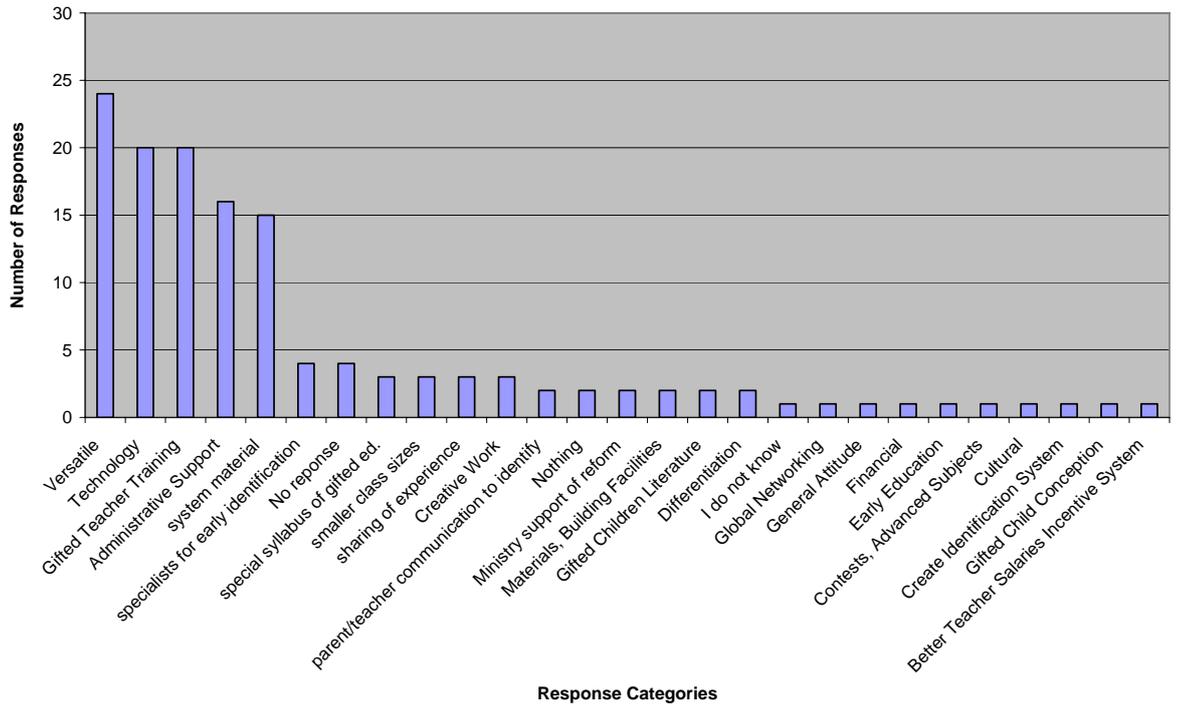
Pre Survey	Responses	Number of Responses	%	Post Survey	Responses	Number of Responses	%
Versatile-theoretical	72	1	1%	Qualified Teacher Preparation	11,21,40,41,6,25,26,27,1,8,14,23,32,43,28,36,41,4,	18	42%
Gifted Teacher Training	3,9,19,20,21,22,24,25,33,34,40,43,44,49,53,54,55,56,66,68,68,70,73,76,	23	30%	Finances	4,7,11,17,26,27,29,36,37,39,40,	11	26%
Special Syllabus	8,3,15,32,36,37,40,41,44,45,46,47,50,51,34,57,59,60,63,64,67,69,71,72,	22	29%	Syllabi	5,6,12,15,21,23,28,36,41,33,	10	23%
Financial	3,16,23,27,31,39,48,53,59,66,69,70,71,74,76,	15	20%	Identification System	4,9,10,19,24,28,41,	7	16%
Create Identification System	2, 10, 14,30,31,34,37,38,53,56,59,63,66,	13	17%	Identification Tests	6,13,18,20,22,30,	6	14%
Materials, Building Facilities	5,17,27,29,34,37,41,55,56,64,65,66,	12	16%	No Response	3,38,7,34,35	5	12%
NA Response	61,62,11,12,13,28,52,35	8	11%	Teaching Materials	7,9,10,41,	4	9%
Tests	5,40,45,55,57,70,73,	7	9%	Literature	9,14,32,43,	4	9%
Gifted Children Literature	1,25, 45,55,73	5	7%	Authorized Questionnaires	2,19,42,	3	7%
Technology	29,33,37,65	4	5%	Special Classes for Gifted	5,15,26,	3	7%
Administrative/Govt. Support	8,26,71,75,	4	5%	Publications	8,29,37,	3	7%
Smaller Class Sizes	29,31,64,	3	4%	Collaboration	16,32,43,	3	7%
Teacher Salary Incentive System	34,53,36	3	4%	Research-based Information	8,30,	2	5%
Experience Working with Gifted	1,30,70,	3	3%	Ministry of Education Support	17,42,	2	5%
Specialists for Early Identification	8,59	2	3%	Time	7,	1	2%
Collaboration	4,8	2	3%	Work Experience	19,	1	2%
Global Networking	6,58	2	3%	Decrease Class Sizes	21,	1	2%
Creative Work	28,31,	2	3%	Technology	21,	1	2%
Doing	58,	1	1%	Attention	29,	1	2%

Research							
Involve Parent/teacher in Identification	57,		1	1%	Dissemination of Information	29,	1 2%
Contests, Advanced Subjects	18,		1	1%	Psychological Achievement Tests	31,	1 2%
General Attitude	70,		1	1%	Theoretical & Practical	39,	1 2%
Gifted Child Conception	2,		1	1%	Begin Training with Higher Ranks	40,	1 2%
Differentiation	40,		1	1%			
Contests, Advanced Subjects	18,		1	1%			
Cultural	48,		1	1%			

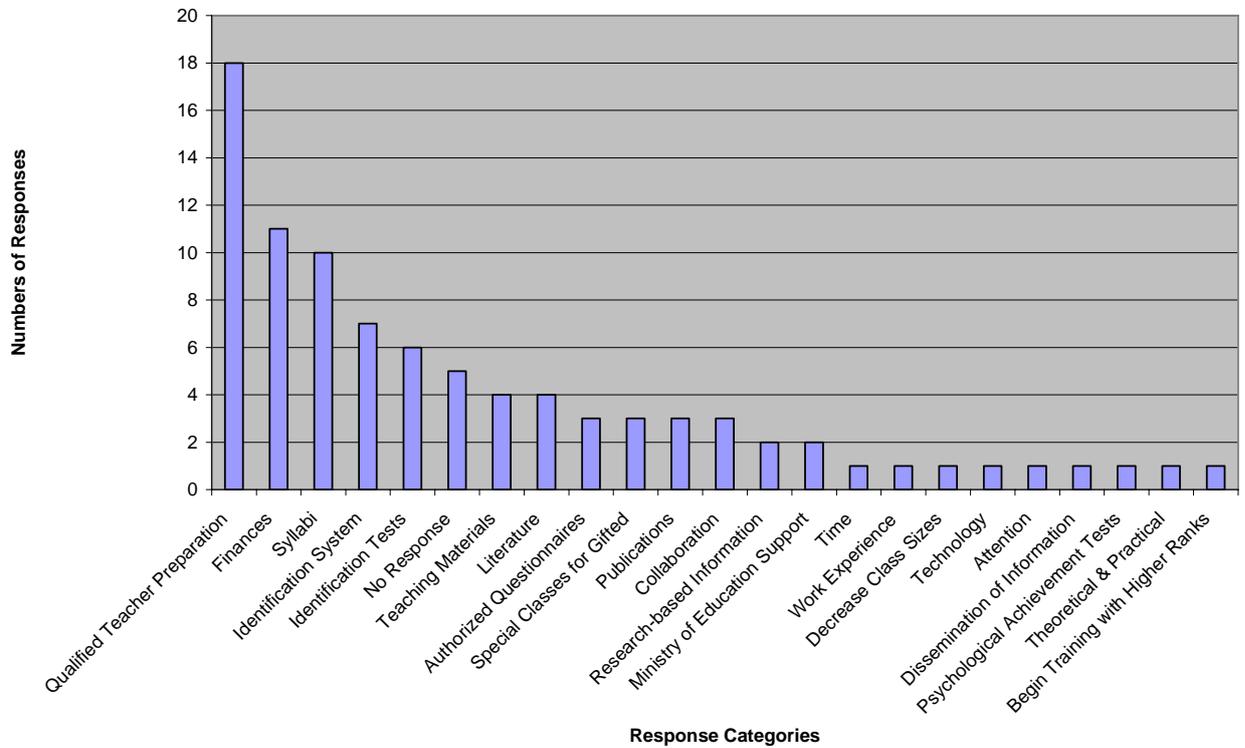




Q8: What Assistance is Needed in Lithuanian Schools for the Gifted? (Pre Survey)

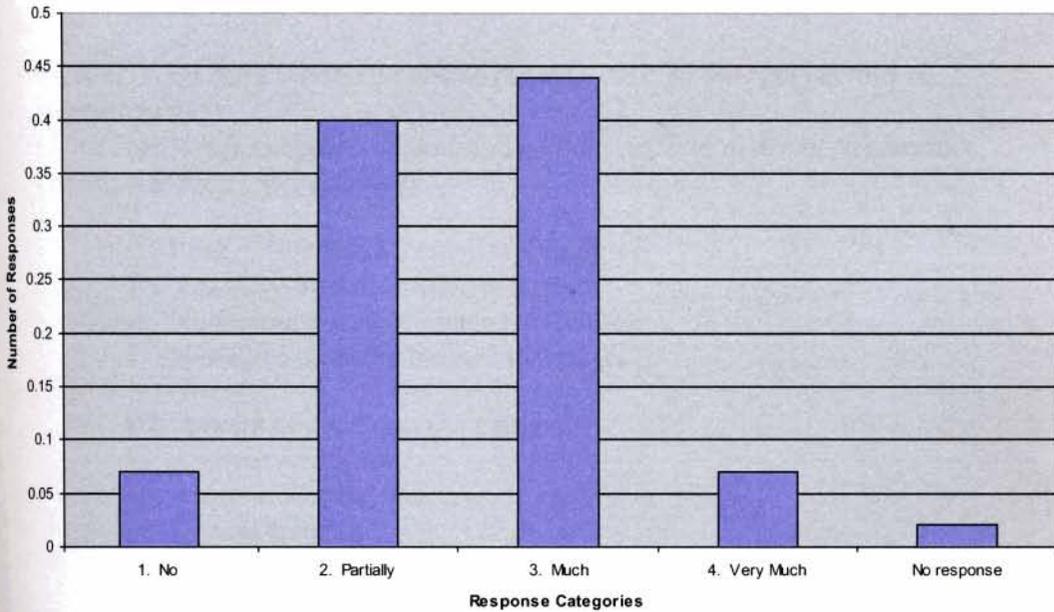


Q8: What assistance is needed for Lithuanian schools for the gifted? (Post-Survey)



Q9			
Q9: Has understanding of concept of 'gifted' changed? (Post Survey)			
1. No	34,35,36,	3	7%
2. Partially	18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33,43	17	40%
3. Much	1,2,3,4,5,6,7,8,9,10,11,12,13,37 ,38,39,40,41,42,	19	44%
4. Very Much	14,15,16,	3	7%
No response	17,	1	2%

Q9: Has your concept of 'giftedness' changed (after CPD)? (Post-Survey)



Appendix K

Nvivo coding and analysis of data:

1. Document listing;
2. Node listing;
3. **Q2 - Concept of Giftedness (complete, others available upon request);**
4. Q3 - Qualities of gifted learners'
5. Q4 - Methods Used to Identify GC
6. Q5 - Percent of GC at School
7. Q6 - Teaching Requirements for GC
8. Q7 - Teachers Meeting Needs of GC at School
9. Q8 - Needed to Identify & Make Syllabi work for GC
10. Q9 - Changes in Understanding After Lecture & Seminars
11. Frequency Counts

The titles of the nine coding reports with multiple subcategories are shown below:

CODING REPORTS

SURVEY QUESTIONS (9 coding reports with 83 categories and 42 subcategories)

(Most categories and subcategories are in descending order of frequency counts; see Excel spreadsheet)

1. Q1-Read or listened to lectures (3 categories)
 - Yes-Have read or listened to lectures
 - No-Have not read or listened to lectures
 - Not asked if read or listened to lectures
2. Q2-Concept of giftedness (15 categories)
 - Aptitude and talent
 - Achievement and mastery
 - Critical thinking
 - Natural abilities
 - Creativity
 - Intellect
 - Quick
 - Adaptability
 - Self-motivated
 - Advanced ideas
 - Curiosity
 - Other
 - Self-actualization
 - Leadership
 - Perseverance and persistence
3. Q3-Qualities of gifted learners (22 categories)
 - Critical thinking - analytical
 - Achievement - mastering - fulfilling

- Curious
 - Creative
 - Multiple sources & interests
 - Learn quickly
 - Disciplined
 - Actively engaged - receptive
 - Adaptable - quick orientation
 - Independence - individuality
 - Other
 - Self-motivation
 - Intellectual
 - Communication
 - Leadership
 - Perseverance and persistence
 - Memory and retention
 - Clever - quick-witted
 - Intuitive - perceptive
 - Confident
 - Physical
 - Talented
4. Q4-Methods used to identify GC (9 categories)
- Testing and evaluation
 - Assignments & tasks (8 subcategories)
 - Creative
 - Logical
 - Individual
 - Differentiated - nonstandard - special
 - Projects
 - Additional
 - Type not specified
 - Group & team work
 - Surveys & questionnaires
 - Observation
 - Conversations
 - Information from others
 - Contests & games
 - Child expresses interest
 - Other
5. Q5-Percent of GC at school (5 categories)
- 0-10% GC at school
 - 11-20% GC at school
 - 21-30% GC at school
 - 31-40% GC at school
 - 41% or more GC at school
6. Q6-Teaching requirements for GC (6 categories)
- Teaching methods (8 subcategories)
 - Differentiated assignments
 - Complex assignments
 - Multiple resources

- Individualized work
 - Novelty
 - Additional assignments
 - Use of technology
 - Motivate
 - Teacher planning & preparation
 - Teacher qualifications & attitude
 - Facilities
 - Other
 - GC student characteristics (12 subcategories)
 - Attention-seeking
 - Knowledge-seeking
 - Pace - quick
 - Self-expression
 - Talented
 - Critical thinking
 - Engaged - active - bold
 - Performance
 - Curious
 - Self actualization
 - Communication skills
 - Self-motivated
7. Q7-Teachers meeting needs of GC at school (7 categories)
- Rank 0-1 or no
 - Rank 2-3
 - Rank 4-5
 - Yes-rank not given
 - NR
 - How achieved (5 subcategories)
 - Individualized differentiated additional assignments
 - Other teaching methods
 - Teacher planning and preparation
 - Extracurricular Contests Olympiads Clubs
 - Materials and resources
 - Changes needed (9 subcategories)
 - Systemic
 - Diverse student learning levels
 - Professional development for teachers
 - Syllabi and curriculum
 - Time
 - Financial
 - Reduced class size
 - Parents
 - Restrictions on teachers
8. Q8-Needed to identify & make syllabi work for GC (11 categories)
- Syllabi - specialized for GC
 - Financial
 - Professional development
 - Educational resources & materials

- Systemic
 - Methodology
 - Testing & questionnaires
 - Other
 - Experience of others
 - Facilities
 - Class structure
9. Q9-Changes in understanding after lecture & seminars (5 categories)
- No
 - Partially
 - Much
 - Very much
 - NR

Coding Process

One hundred nineteen surveys were transcribed as Word document files. The documents are titled as 76 pre-surveys P-01 through P-76, and 43 post-surveys Post-01 through Post-43, as shown on *Document Listing.doc*.

The coded text in the coding reports sorts alphabetically according to the titles of the interviews, assuming text has been coded from those documents.

The survey protocol was used to compile meaningful node titles for coding. The protocol is shown below (Question 9 post survey):

- Question 1: Have you ever heard of or have ever attended gifted lectures?
- Question 2: What is 'giftedness'?
- Question 3: Characterize one of your gifted pupils.
- Question 4: What are some methods to identify gifted pupils?
- Question 5: What is the percentage of gifted pupils in your school?
- Question 6: What specific requirements might gifted children have?
- Question 7: Do teachers satisfy these requirements?
- Question 8: What assistance is needed in Lithuanian schools for the gifted?
- Question 9: Has your understanding of the concept of gifted changed (after PD intervention)?

The node titles in NVivo are shown below:

- Q1-Read or listened to lectures
- Q2-Concept of giftedness
- Q3-Qualities of gifted learners
- Q4-Methods used to identify GC
- Q5-Percent of GC at school
- Q6-Teaching requirements for GC
- Q7-Teachers meeting needs of GC at school
- Q8-Needed to identify & make syllabi work for GC
- Q9-Changes in understanding after lecture & seminars

NVivo 8 was used to code the surveys into the nine nodes. Each node was then coded into 83 categories and 42 subcategories as shown on pages 1-5 of this document. Multiple coding was performed within categories and subcategories when deemed reasonable and essential.

There are many ways to interpret the data, and coding is a subjective process; therefore, the coding is not exhaustive. My coding strategy is to attempt to provide reminders within various nodes rather than attempt to code every line of text to every single node possible. I also code for context so I occasionally capture more content than might seem necessary; this will save time in the long run from having to look for context when the final analysis is made from the reports.

The spreadsheet titled *Frequency Counts - Leavitt.xls* indicates the number of surveys with at least one comment coded to each node. The spreadsheet frequency counts are sorted in descending order when that seems meaningful.

Coding reports were retrieved as nine node coding reports for all documents. The complete list is shown in this document (pp. 1-5) and in the Word document "Node Listing".

As mentioned previously, the content in the coding reports sorts according to the titles of the documents, if text has been coded from those documents. The titles sort according to 76 pre-surveys (P) or 43 post-surveys (Post).

The coding report indicates the number of references coded and percent coverage. For example, I can select three paragraphs at one time and that is one reference, or I can select three sections within a single paragraph (three different selections) and that is three references. Percent of coverage refers to the percent from the entire document. In the example below, the source P-31 has two references coded representing 8.32% coverage of the source. Each reference also lists the percent coverage so Reference 1 represents 3.33% of the total source and Reference 2 represents 4.99% coverage. Both references add to 8.32% coverage.

<Internals\P-31> - § 2 references coded [8.32% Coverage]

Reference 1 - 3.33% Coverage

Quick mastering and reproduction

Reference 2 - 4.99% Coverage

posing problems and finding ways to solve them

These statistics are not particularly useful other than for "proportionality" in that a lot was said or a little was said. The main statistic that has value is number of sources coded to each node (frequency counts in Excel) as will be explained in this document you are reading.

Q2-Concept of giftedness

	Page
• Aptitude and talent	2
• Achievement and mastery	9
• Critical thinking	16
• Natural abilities	21
• Creativity	26
• Intellect	30
• Quick	34
• Adaptability	37
• Self-motivated	40
• Advanced ideas	43
• Curiosity	46
• Other	48
• Self-actualization	50
• Leadership	51
• Perseverance and persistence	52

Name: Aptitude and talent

<Internals\P-04> - § 1 reference coded [9.52% Coverage]

Reference 1 - 9.52% Coverage

These are better abilities in some particular activity

<Internals\P-05> - § 1 reference coded [8.84% Coverage]

Reference 1 - 8.84% Coverage

Better abilities to fulfill the given assignments

<Internals\P-11> - § 1 reference coded [13.54% Coverage]

Reference 1 - 13.54% Coverage

To think in a non-stencil way as well as one or a few features manifesting themselves in a particular area

<Internals\P-12> - § 1 reference coded [5.92% Coverage]

Reference 1 - 5.92% Coverage

Abilities higher than average

<Internals\P-15> - § 1 reference coded [7.81% Coverage]

Reference 1 - 7.81% Coverage

Ability of the child to grasp the new material

<Internals\P-16> - § 1 reference coded [9.23% Coverage]

Reference 1 - 9.23% Coverage

This is a child with innate giftedness, erudition

<Internals\P-19> - § 1 reference coded [8.15% Coverage]

Reference 1 - 8.15% Coverage

Learner's ability to master curriculum without extra effort

<Internals\P-21> - § 1 reference coded [12.56% Coverage]

Reference 1 - 12.56% Coverage

A gifted child can master curriculum very well, can fulfill nonstandard assignments

<Internals\P-23> - § 1 reference coded [11.43% Coverage]

Reference 1 - 11.43% Coverage

exceptional abilities in particular branches of science or art

<Internals\P-24> - § 1 reference coded [24.25% Coverage]

Reference 1 - 24.25% Coverage

The concept of "giftedness" I understand as children's abilities to express themselves in different surroundings, various fields.

<Internals\P-25> - § 1 reference coded [8.32% Coverage]

Reference 1 - 8.32% Coverage

Special abilities, inborn talents in some particular field

<Internals\P-33> - § 1 reference coded [8.71% Coverage]

Reference 1 - 8.71% Coverage

Ability to comprehend new material without additional explanations

<Internals\P-36> - § 1 reference coded [13.01% Coverage]

Reference 1 - 13.01% Coverage

These are higher than average abilities in one or a few fields, which allow to be more creative and achieve better results in particular science or art fields

<Internals\P-40> - § 1 reference coded [3.37% Coverage]

Reference 1 - 3.37% Coverage

Specific abilities in a particular field,

<Internals\P-41> - § 1 reference coded [5.10% Coverage]

Reference 1 - 5.10% Coverage

These are special abilities in one or a few fields,

<Internals\P-43> - § 1 reference coded [7.93% Coverage]

Reference 1 - 7.93% Coverage

Ability to achieve more than others in a particular field

<Internals\P-45> - § 1 reference coded [7.39% Coverage]

Reference 1 - 7.39% Coverage

Special abilities in some particular field

<Internals\P-49> - § 1 reference coded [6.59% Coverage]

Reference 1 - 6.59% Coverage

Inborn abilities in a particular field

<Internals\P-51> - § 1 reference coded [11.13% Coverage]

Reference 1 - 11.13% Coverage

There are universally gifted children and those who are gifted in some particular field

<Internals\P-52> - § 1 reference coded [4.07% Coverage]

Reference 1 - 4.07% Coverage

Talents may not only be for science

<Internals\P-54> - § 1 reference coded [21.69% Coverage]

Reference 1 - 21.69% Coverage

These are abilities (8 kinds of H. Gardner) received from God, parents; others are trained applying special programmes. These are children having higher than average general and special abilities, intellect

<Internals\P-55> - § 1 reference coded [12.75% Coverage]

Reference 1 - 12.75% Coverage

These are special abilities; gifted people solve problems in a different way than others

<Internals\P-56> - § 1 reference coded [18.95% Coverage]

Reference 1 - 18.95% Coverage

Abilities, individual traits that are the gamut of intellect, aptitude, skills, experience, motivation and creativity. Also giftedness can be related to personal singleness

<Internals\P-57> - § 1 reference coded [12.16% Coverage]

Reference 1 - 12.16% Coverage

Ability to grasp the problem easily and find the way for its solution

<Internals\P-60> - § 1 reference coded [0.76% Coverage]

Reference 1 - 0.76% Coverage

Talent

<Internals\P-66> - § 1 reference coded [6.81% Coverage]

Reference 1 - 6.81% Coverage

This is ability to solve tasks on a high level in some field

<Internals\P-69> - § 1 reference coded [7.47% Coverage]

Reference 1 - 7.47% Coverage

Special (higher than average) abilities in a certain field of science or art

<Internals\P-72> - § 1 reference coded [9.94% Coverage]

Reference 1 - 9.94% Coverage

In his age group the child distinguishes himself by special abilities in certain fields

<Internals\P-73> - § 1 reference coded [8.94% Coverage]

Reference 1 - 8.94% Coverage

This is the feature owing to which a learner feels stronger in some field

<Internals\P-76> - § 1 reference coded [12.30% Coverage]

Reference 1 - 12.30% Coverage

For me the concept 'giftedness' means greater than average learner's abilities to learn, in scientific or artistic creation

<Internals\Post-01> - § 1 reference coded [2.50% Coverage]

Reference 1 - 2.50% Coverage

specific academic ability

<Internals\Post-05> - § 1 reference coded [1.99% Coverage]

Reference 1 - 1.99% Coverage

academic abilities

<Internals\Post-08> - § 1 reference coded [9.50% Coverage]

Reference 1 - 9.50% Coverage

Uncommon abilities in some particular field, achieving highest results

<Internals\Post-09> - § 1 reference coded [10.38% Coverage]

Reference 1 - 10.38% Coverage

Higher skills, faculties in different fields while compared to those of contemporaries/people

<Internals\Post-10> - § 1 reference coded [12.83% Coverage]

Reference 1 - 12.83% Coverage

Special ability to fulfill creatively standard and non-standard assignments in one (or a few) scientific (or artistic) fields

<Internals\Post-11> - § 1 reference coded [9.64% Coverage]

Reference 1 - 9.64% Coverage

These are individual personal features determining success in one or another activity

<Internals\Post-12> - § 1 reference coded [7.53% Coverage]

Reference 1 - 7.53% Coverage

These are higher than average abilities in various fields

<Internals\Post-14> - § 1 reference coded [8.11% Coverage]

Reference 1 - 8.11% Coverage

These are special abilities in a particular field (art, music, science)

<Internals\Post-15> - § 2 references coded [6.50% Coverage]

Reference 1 - 3.67% Coverage

special academic abilities

Reference 2 - 2.82% Coverage

giftedness for art

<Internals\Post-17> - § 1 reference coded [1.76% Coverage]

Reference 1 - 1.76% Coverage

abilities

<Internals\Post-18> - § 1 reference coded [8.46% Coverage]

Reference 1 - 8.46% Coverage

The child distinguishes himself from contemporaries by his perception

<Internals\Post-19> - § 3 references coded [10.01% Coverage]

Reference 1 - 3.89% Coverage

specific academic giftedness

Reference 2 - 2.64% Coverage

giftedness for arts

Reference 3 - 3.48% Coverage

psychometric giftedness

<Internals\Post-23> - § 1 reference coded [11.76% Coverage]

Reference 1 - 11.76% Coverage

A child distinguishes himself from the group of contemporaries by talent and abilities

<Internals\Post-25> - § 1 reference coded [13.88% Coverage]

Reference 1 - 13.88% Coverage

This is psychic ability of a person allowing to fulfill assignments in a certain field or fields on a higher than average level

<Internals\Post-30> - § 1 reference coded [3.58% Coverage]

Reference 1 - 3.58% Coverage

special academic abilities

<Internals\Post-31> - § 1 reference coded [3.45% Coverage]

Reference 1 - 3.45% Coverage

specific academic abilities

<Internals\Post-32> - § 1 reference coded [6.75% Coverage]

Reference 1 - 6.75% Coverage

quick orientation not everywhere but in some particular field

<Internals\Post-33> - § 1 reference coded [2.53% Coverage]

Reference 1 - 2.53% Coverage

Exceptional abilities

<Internals\Post-40> - § 1 reference coded [12.52% Coverage]

Reference 1 - 12.52% Coverage

If about the child this is versatile perfection, higher than average giftedness in the same age group,

<Internals\Post-41> - § 1 reference coded [16.14% Coverage]

Reference 1 - 16.14% Coverage

Higher than average abilities in some particular fields as compared to the individuals of the same age, experience, social background, allowing to achieve higher than average results

Name: Achievement and mastery

<Internals\P-04> - § 1 reference coded [10.58% Coverage]

Reference 1 - 10.58% Coverage

achieving much better results without making every effort

<Internals\P-05> - § 1 reference coded [8.32% Coverage]

Reference 1 - 8.32% Coverage

Better abilities to fulfill the given assignments

<Internals\P-11> - § 1 reference coded [11.49% Coverage]

Reference 1 - 11.49% Coverage

Learner's ability to fulfill (not according to their age) some kind of work or assignment.

<Internals\P-14> - § 1 reference coded [4.03% Coverage]

Reference 1 - 4.03% Coverage

prompt solution of non-standard assignments

<Internals\P-15> - § 1 reference coded [7.81% Coverage]

Reference 1 - 7.81% Coverage

Ability of the child to grasp the new material

<Internals\P-16> - § 1 reference coded [1.69% Coverage]

Reference 1 - 1.69% Coverage

erudition

<Internals\P-19> - § 1 reference coded [8.15% Coverage]

Reference 1 - 8.15% Coverage

Learner's ability to master curriculum without extra effort

<Internals\P-21> - § 1 reference coded [12.56% Coverage]

Reference 1 - 12.56% Coverage

A gifted child can master curriculum very well, can fulfill nonstandard assignments

<Internals\P-33> - § 1 reference coded [8.71% Coverage]

Reference 1 - 8.71% Coverage

Ability to comprehend new material without additional explanations

<Internals\P-36> - § 1 reference coded [4.88% Coverage]

Reference 1 - 4.88% Coverage

achieve better results in particular science or art fields

<Internals\P-38> - § 1 reference coded [15.90% Coverage]

Reference 1 - 15.90% Coverage

The teacher does not need repeating the same things again and again, the learner is able to solve assignments quickly

<Internals\P-40> - § 1 reference coded [4.50% Coverage]

Reference 1 - 4.50% Coverage

as well as ability to generalize and put into practice

<Internals\P-41> - § 1 reference coded [7.26% Coverage]

Reference 1 - 7.26% Coverage

easy comprehension when a child does not even have to make every effort

<Internals\P-42> - § 1 reference coded [6.64% Coverage]

Reference 1 - 6.64% Coverage

ability to apply knowledge, minimum work-maximum result

<Internals\P-43> - § 1 reference coded [7.93% Coverage]

Reference 1 - 7.93% Coverage

Ability to achieve more than others in a particular field

<Internals\P-44> - § 1 reference coded [10.51% Coverage]

Reference 1 - 10.51% Coverage

Individual abilities to master teaching material and perceive it, apply it in true to life situations

<Internals\P-51> - § 1 reference coded [4.88% Coverage]

Reference 1 - 4.88% Coverage

masters perfectly the teaching material

<Internals\P-52> - § 1 reference coded [3.95% Coverage]

Reference 1 - 3.95% Coverage

ability to do something perfectly

<Internals\P-53> - § 1 reference coded [5.33% Coverage]

Reference 1 - 5.33% Coverage

Can fulfill different assignments in a qualitative way

<Internals\P-55> - § 1 reference coded [8.64% Coverage]

Reference 1 - 8.64% Coverage

gifted people solve problems in a different way than others

<Internals\P-57> - § 1 reference coded [12.16% Coverage]

Reference 1 - 12.16% Coverage

Ability to grasp the problem easily and find the way for its solution

<Internals\P-62> - § 1 reference coded [11.62% Coverage]

Reference 1 - 11.62% Coverage

A child masters the teaching material quickly enough and much more

<Internals\P-64> - § 1 reference coded [8.98% Coverage]

Reference 1 - 8.98% Coverage

helps the person to solve problems quickly, effectively and productively

<Internals\P-65> - § 1 reference coded [4.32% Coverage]

Reference 1 - 4.32% Coverage

Quick mastering of new knowledge

<Internals\P-66> - § 1 reference coded [6.81% Coverage]

Reference 1 - 6.81% Coverage

This is ability to solve tasks on a high level in some field

<Internals\P-68> - § 1 reference coded [8.58% Coverage]

Reference 1 - 8.58% Coverage

ability to perform something exceptional correctly

<Internals\P-74> - § 1 reference coded [5.29% Coverage]

Reference 1 - 5.29% Coverage

performs all tasks ideally

<Internals\Post-01> - § 2 references coded [9.69% Coverage]

Reference 1 - 2.50% Coverage

specific academic ability

Reference 2 - 7.19% Coverage

distinguishing from his contemporaries by a higher level of achievements

<Internals\Post-02> - § 1 reference coded [16.11% Coverage]

Reference 1 - 16.11% Coverage

This is the ability to think abstractly, perceive the world, apply practically the knowledge and skills gained, ability to generalize

<Internals\Post-03> - § 1 reference coded [8.08% Coverage]

Reference 1 - 8.08% Coverage

fulfill assignments, create something new better than others

<Internals\Post-04> - § 1 reference coded [1.46% Coverage]

Reference 1 - 1.46% Coverage

knowledge+result.

<Internals\Post-05> - § 1 reference coded [3.86% Coverage]

Reference 1 - 3.86% Coverage

working creatively and productively

<Internals\Post-08> - § 1 reference coded [9.50% Coverage]

Reference 1 - 9.50% Coverage

Uncommon abilities in some particular field, achieving highest results

<Internals\Post-11> - § 1 reference coded [9.64% Coverage]

Reference 1 - 9.64% Coverage

These are individual personal features determining success in one or another activity

<Internals\Post-16> - § 1 reference coded [9.47% Coverage]

Reference 1 - 9.47% Coverage

Perfectly knows my subject in the syllabus framework and more

<Internals\Post-20> - § 1 reference coded [7.89% Coverage]

Reference 1 - 7.89% Coverage

able to select quickly essential facts and analyze them

<Internals\Post-23> - § 1 reference coded [11.76% Coverage]

Reference 1 - 11.76% Coverage

A child distinguishes himself from the group of contemporaries by talent and abilities

<Internals\Post-24> - § 1 reference coded [12.01% Coverage]

Reference 1 - 12.01% Coverage

Ability to perform something, perceive better than others under the same conditions

<Internals\Post-25> - § 1 reference coded [13.88% Coverage]

Reference 1 - 13.88% Coverage

This is psychic ability of a person allowing to fulfill assignments in a certain field or fields on a higher than average level

<Internals\Post-26> - § 1 reference coded [7.79% Coverage]

Reference 1 - 7.79% Coverage

These are higher than average abilities manifesting themselves in productive activity

<Internals\Post-27> - § 1 reference coded [4.70% Coverage]

Reference 1 - 4.70% Coverage

This is greater giftedness than average

<Internals\Post-34> - § 1 reference coded [7.62% Coverage]

Reference 1 - 7.62% Coverage

Learner's ability to fulfill assignments quickly and correctly

<Internals\Post-35> - § 2 references coded [3.17% Coverage]

Reference 1 - 1.53% Coverage

productivity,

Reference 2 - 1.64% Coverage

unlimitedness,

<Internals\Post-38> - § 1 reference coded [6.43% Coverage]

Reference 1 - 6.43% Coverage

Perfect knowledge of the subject, productive creative work

<Internals\Post-39> - § 1 reference coded [4.26% Coverage]

Reference 1 - 4.26% Coverage

very good achievements in studies

<Internals\Post-40> - § 1 reference coded [12.27% Coverage]

Reference 1 - 12.27% Coverage

If about the child this is versatile perfection, higher than average giftedness in the same age group

<Internals\Post-41> - § 1 reference coded [16.14% Coverage]

Reference 1 - 16.14% Coverage

Higher than average abilities in some particular fields as compared to the individuals of the same age, experience, social background, allowing to achieve higher than average results

<Internals\Post-43> - § 1 reference coded [6.86% Coverage]

Reference 1 - 6.86% Coverage

Special abilities to comprehend, reason, communicate, create

Name: Critical thinking

<Internals\P-01> - § 1 reference coded [6.17% Coverage]

Reference 1 - 6.17% Coverage

Ability to orient oneself in a new situation, master new information

<Internals\P-02> - § 1 reference coded [4.39% Coverage]

Reference 1 - 4.39% Coverage

ability to single out essential, main points

<Internals\P-07> - § 1 reference coded [0.95% Coverage]

Reference 1 - 0.95% Coverage

analyse

<Internals\P-08> - § 2 references coded [5.70% Coverage]

Reference 1 - 3.38% Coverage

Quick perception

Reference 2 - 2.32% Coverage

application

<Internals\P-13> - § 1 reference coded [10.24% Coverage]

Reference 1 - 10.24% Coverage

able to think logically, able to master new conceptions. Critical.

<Internals\P-17> - § 1 reference coded [9.66% Coverage]

Reference 1 - 9.66% Coverage

Ability to perceive well the information given and to apply it in practice

<Internals\P-18> - § 1 reference coded [15.47% Coverage]

Reference 1 - 15.47% Coverage

Ability to process new information quickly and apply it in practice as well as to find new quality of acquired experience

<Internals\P-20> - § 1 reference coded [1.46% Coverage]

Reference 1 - 1.46% Coverage

perception

<Internals\P-21> - § 1 reference coded [4.75% Coverage]

Reference 1 - 4.75% Coverage

has very good logical thinking

<Internals\P-23> - § 1 reference coded [6.07% Coverage]

Reference 1 - 6.07% Coverage

make conclusions, logical thinking

<Internals\P-30> - § 1 reference coded [19.20% Coverage]

Reference 1 - 19.20% Coverage

Ability to link and analyze facts, knowledge making conclusions at the same time discovering something new; exceptional models of contemplation and thinking

<Internals\P-31> - § 2 references coded [8.32% Coverage]

Reference 1 - 3.33% Coverage

Quick mastering and reproduction

Reference 2 - 4.99% Coverage

posing problems and finding ways to solve them

<Internals\P-32> - § 1 reference coded [7.19% Coverage]

Reference 1 - 7.19% Coverage

Ability to perceive, contemplate, apply, etc.

<Internals\P-33> - § 1 reference coded [14.25% Coverage]

Reference 1 - 14.25% Coverage

Ability to comprehend new material without additional explanations, select information as well as apply it

<Internals\P-37> - § 1 reference coded [8.40% Coverage]

Reference 1 - 8.40% Coverage

This a person distinguished for receptivity of novelties, creativity, ingenuity

<Internals\P-39> - § 1 reference coded [4.98% Coverage]

Reference 1 - 4.98% Coverage

Creative application of knowledge

<Internals\P-40> - § 1 reference coded [6.18% Coverage]

Reference 1 - 6.18% Coverage

exceptional thinking as well as ability to generalize and put into practice

<Internals\P-44> - § 1 reference coded [10.72% Coverage]

Reference 1 - 10.72% Coverage

Individual abilities to master teaching material and perceive it, apply it in true to life situations

<Internals\P-46> - § 1 reference coded [8.23% Coverage]

Reference 1 - 8.23% Coverage

precise comprehension, abstract thinking, synthesis of different subjects

<Internals\P-51> - § 1 reference coded [4.88% Coverage]

Reference 1 - 4.88% Coverage

masters perfectly the teaching material

<Internals\P-55> - § 1 reference coded [8.64% Coverage]

Reference 1 - 8.64% Coverage

gifted people solve problems in a different way than others

<Internals\P-58> - § 1 reference coded [2.07% Coverage]

Reference 1 - 2.07% Coverage

trained thinking

<Internals\P-68> - § 1 reference coded [5.94% Coverage]

Reference 1 - 5.94% Coverage

ability to analyze, make conclusions

<Internals\P-75> - § 2 references coded [4.31% Coverage]

Reference 1 - 1.11% Coverage

thinking

Reference 2 - 3.20% Coverage

abilities to generalize

<Internals\Post-02> - § 1 reference coded [16.11% Coverage]

Reference 1 - 16.11% Coverage

This is the ability to think abstractly, perceive the world, apply practically the knowledge and skills gained, ability to generalize

<Internals\Post-03> - § 1 reference coded [3.44% Coverage]

Reference 1 - 3.44% Coverage

It is the ability to think

<Internals\Post-13> - § 1 reference coded [9.45% Coverage]

Reference 1 - 9.45% Coverage

able to receive and select information as well as to analyze it

<Internals\Post-15> - § 1 reference coded [2.68% Coverage]

Reference 1 - 2.68% Coverage

productive thinking

<Internals\Post-19> - § 1 reference coded [3.48% Coverage]

Reference 1 - 3.48% Coverage

psychometric giftedness

<Internals\Post-20> - § 2 references coded [12.77% Coverage]

Reference 1 - 4.88% Coverage

The learner has critical thinking

Reference 2 - 7.89% Coverage

able to select quickly essential facts and analyze them

<Internals\Post-31> - § 1 reference coded [3.45% Coverage]

Reference 1 - 3.45% Coverage

ability to think critically

<Internals\Post-32> - § 1 reference coded [1.77% Coverage]

Reference 1 - 1.77% Coverage

Logical thinking

<Internals\Post-34> - § 1 reference coded [3.00% Coverage]

Reference 1 - 3.00% Coverage

a collection of thinking

<Internals\Post-43> - § 1 reference coded [6.86% Coverage]

Reference 1 - 6.86% Coverage

Special abilities to comprehend, reason, communicate, create

Name: Natural abilities

<Internals\P-03> - § 1 reference coded [1.93% Coverage]

Reference 1 - 1.93% Coverage

Inborn abilities

<Internals\P-04> - § 1 reference coded [20.11% Coverage]

Reference 1 - 20.11% Coverage

These are better abilities in some particular activity, achieving much better results without making every effort

<Internals\P-05> - § 1 reference coded [8.67% Coverage]

Reference 1 - 8.67% Coverage

Better abilities to fulfill the given assignments

<Internals\P-06> - § 1 reference coded [14.89% Coverage]

Reference 1 - 14.89% Coverage

These are special abilities in some field, higher than average level of perception

<Internals\P-09> - § 1 reference coded [10.24% Coverage]

Reference 1 - 10.24% Coverage

Particular complement of abilities and personal traits in a particular area

<Internals\P-12> - § 1 reference coded [5.92% Coverage]

Reference 1 - 5.92% Coverage

Abilities higher than average

<Internals\P-16> - § 1 reference coded [7.16% Coverage]

Reference 1 - 7.16% Coverage

This is a child with innate giftedness

<Internals\P-22> - § 1 reference coded [10.76% Coverage]

Reference 1 - 10.76% Coverage

Inborn abilities for particular activities: mental, artistic, physical, etc.

<Internals\P-25> - § 1 reference coded [8.32% Coverage]

Reference 1 - 8.32% Coverage

Special abilities, inborn talents in some particular field

<Internals\P-34> - § 1 reference coded [8.79% Coverage]

Reference 1 - 8.79% Coverage

Idiosyncrasy stimulating the child's interest in something and distinguishing a learner from the group (class)

<Internals\P-35> - § 1 reference coded [20.82% Coverage]

Reference 1 - 20.82% Coverage

The whole gamut of individual features with the help of which the learner is able to adapt to real situations of life, those individual traits of character distinguish the child from his contemporaries

<Internals\P-41> - § 1 reference coded [12.27% Coverage]

Reference 1 - 12.27% Coverage

These are special abilities in one or a few fields, easy comprehension when a child does not even have to make every effort

<Internals\P-42> - § 2 references coded [7.89% Coverage]

Reference 1 - 1.26% Coverage

good memory

Reference 2 - 6.64% Coverage

ability to apply knowledge, minimum work-maximum result

<Internals\P-44> - § 1 reference coded [10.51% Coverage]

Reference 1 - 10.51% Coverage

Individual abilities to master teaching material and perceive it, apply it in true to life situations

<Internals\P-45> - § 1 reference coded [7.39% Coverage]

Reference 1 - 7.39% Coverage

Special abilities in some particular field

<Internals\P-47> - § 1 reference coded [4.65% Coverage]

Reference 1 - 4.65% Coverage

It is a gift from God and genes

<Internals\P-48> - § 1 reference coded [5.22% Coverage]

Reference 1 - 5.22% Coverage

It is simply a gift from God

<Internals\P-49> - § 1 reference coded [6.59% Coverage]

Reference 1 - 6.59% Coverage

Inborn abilities in a particular field

<Internals\P-51> - § 1 reference coded [11.13% Coverage]

Reference 1 - 11.13% Coverage

There are universally gifted children and those who are gifted in some particular field

<Internals\P-54> - § 1 reference coded [7.30% Coverage]

Reference 1 - 7.30% Coverage

These are abilities (8 kinds of H. Gardner) received from God, parents

<Internals\P-55> - § 1 reference coded [12.61% Coverage]

Reference 1 - 12.61% Coverage

These are special abilities, gifted people solve problems in a different way than others

<Internals\P-56> - § 1 reference coded [18.95% Coverage]

Reference 1 - 18.95% Coverage

Abilities, individual traits that is the gamut of intellect, aptitude, skills, experience, motivation and creativity. Also giftedness can be related to personal singleness

<Internals\P-58> - § 1 reference coded [4.76% Coverage]

Reference 1 - 4.76% Coverage

These are human genetic characteristics

<Internals\P-61> - § 1 reference coded [10.14% Coverage]

Reference 1 - 10.14% Coverage

When a person is susceptible from birth to languages, mathematics, etc.

<Internals\P-64> - § 1 reference coded [14.44% Coverage]

Reference 1 - 14.44% Coverage

Giftedness is an innate human feature, which helps the person to solve problems quickly, effectively and productively

<Internals\P-66> - § 1 reference coded [8.74% Coverage]

Reference 1 - 8.74% Coverage

these are innate human features related to the quality of psychic processes

<Internals\P-75> - § 1 reference coded [9.46% Coverage]

Reference 1 - 9.46% Coverage

These are the children distinguishing themselves by innate abilities

<Internals\Post-04> - § 1 reference coded [2.07% Coverage]

Reference 1 - 2.07% Coverage

It was innate giftedness

<Internals\Post-29> - § 1 reference coded [4.76% Coverage]

Reference 1 - 4.76% Coverage

It is the creation of God, genes

<Internals\Post-34> - § 1 reference coded [1.00% Coverage]

Reference 1 - 1.00% Coverage

memory,

<Internals\Post-36> - § 1 reference coded [9.89% Coverage]

Reference 1 - 9.89% Coverage

Innate abilities for certain-intellectual, artistic, motory –activity

Name: Creativity

<Internals\P-08> - § 1 reference coded [2.32% Coverage]

Reference 1 - 2.32% Coverage

creativity

<Internals\P-11> - § 1 reference coded [13.79% Coverage]

Reference 1 - 13.79% Coverage

To think in a non-stencil way as well as one or a few features manifesting themselves in a particular area

<Internals\P-16> - § 1 reference coded [2.07% Coverage]

Reference 1 - 2.07% Coverage

very clever

<Internals\P-21> - § 1 reference coded [5.21% Coverage]

Reference 1 - 5.21% Coverage

can fulfill nonstandard assignments

<Internals\P-31> - § 1 reference coded [2.81% Coverage]

Reference 1 - 2.81% Coverage

creative usage of knowledge

<Internals\P-36> - § 1 reference coded [13.01% Coverage]

Reference 1 - 13.01% Coverage

These are higher than average abilities in one or a few fields, which allow to be more creative and achieve better results in particular science or art fields

<Internals\P-37> - § 1 reference coded [8.40% Coverage]

Reference 1 - 8.40% Coverage

This a person distinguished for receptivity of novelties, creativity, ingenuity

<Internals\P-39> - § 1 reference coded [4.98% Coverage]

Reference 1 - 4.98% Coverage

Creative application of knowledge

<Internals\P-50> - § 1 reference coded [2.77% Coverage]

Reference 1 - 2.77% Coverage

recipient, sharp-witted

<Internals\P-60> - § 1 reference coded [1.27% Coverage]

Reference 1 - 1.27% Coverage

creativity

<Internals\P-65> - § 1 reference coded [4.46% Coverage]

Reference 1 - 4.46% Coverage

creative application of knowledge

<Internals\P-70> - § 1 reference coded [1.78% Coverage]

Reference 1 - 1.78% Coverage

creativity

<Internals\P-74> - § 1 reference coded [2.08% Coverage]

Reference 1 - 2.08% Coverage

is creative

<Internals\Post-01> - § 1 reference coded [1.00% Coverage]

Reference 1 - 1.00% Coverage

creativity

<Internals\Post-03> - § 1 reference coded [5.30% Coverage]

Reference 1 - 5.30% Coverage

create something new better than others

<Internals\Post-05> - § 1 reference coded [1.99% Coverage]

Reference 1 - 1.99% Coverage

working creatively

<Internals\Post-06> - § 1 reference coded [1.40% Coverage]

Reference 1 - 1.40% Coverage

creativity

<Internals\Post-10> - § 1 reference coded [12.83% Coverage]

Reference 1 - 12.83% Coverage

Special ability to fulfill creatively standard and non-standard assignments in one (or a few) scientific (or artistic) fields

<Internals\Post-13> - § 1 reference coded [5.81% Coverage]

Reference 1 - 5.81% Coverage

The learner who thinks non-traditionally

<Internals\Post-15> - § 1 reference coded [2.82% Coverage]

Reference 1 - 2.82% Coverage

giftedness for art

<Internals\Post-19> - § 1 reference coded [2.64% Coverage]

Reference 1 - 2.64% Coverage

giftedness for arts

<Internals\Post-29> - § 1 reference coded [1.44% Coverage]

Reference 1 - 1.44% Coverage

creativity

<Internals\Post-30> - § 1 reference coded [1.33% Coverage]

Reference 1 - 1.33% Coverage

creativity

<Internals\Post-33> - § 1 reference coded [1.20% Coverage]

Reference 1 - 1.20% Coverage

creativity

<Internals\Post-34> - § 1 reference coded [3.75% Coverage]

Reference 1 - 3.75% Coverage

creativity and other faculties

<Internals\Post-35> - § 1 reference coded [1.29% Coverage]

Reference 1 - 1.29% Coverage

creativity,

<Internals\Post-38> - § 1 reference coded [2.79% Coverage]

Reference 1 - 2.79% Coverage

productive creative work

<Internals\Post-43> - § 1 reference coded [6.86% Coverage]

Reference 1 - 6.86% Coverage

Special abilities to comprehend, reason, communicate, create

Name: Intellect

<Internals\P-01> - § 1 reference coded [6.17% Coverage]

Reference 1 - 6.17% Coverage

Ability to orient oneself in a new situation, master new information

<Internals\P-13> - § 1 reference coded [4.45% Coverage]

Reference 1 - 4.45% Coverage

able to master new conceptions

<Internals\P-14> - § 1 reference coded [3.19% Coverage]

Reference 1 - 3.19% Coverage

Ability to grasp new ideas quickly

<Internals\P-15> - § 1 reference coded [7.81% Coverage]

Reference 1 - 7.81% Coverage

Ability of the child to grasp the new material

<Internals\P-16> - § 1 reference coded [1.69% Coverage]

Reference 1 - 1.69% Coverage

erudition

<Internals\P-21> - § 1 reference coded [9.04% Coverage]

Reference 1 - 9.04% Coverage

has very good logical thinking and intellectual faculties

<Internals\P-27> - § 1 reference coded [11.92% Coverage]

Reference 1 - 11.92% Coverage

Ability to express one's knowledge and opinion quickly and in the right way

<Internals\P-29> - § 1 reference coded [5.24% Coverage]

Reference 1 - 5.24% Coverage

Quick, precise grasp of knowledge.

<Internals\P-30> - § 1 reference coded [6.08% Coverage]

Reference 1 - 6.08% Coverage

exceptional models of contemplation and thinking

<Internals\P-31> - § 1 reference coded [3.33% Coverage]

Reference 1 - 3.33% Coverage

Quick mastering and reproduction

<Internals\P-37> - § 1 reference coded [8.40% Coverage]

Reference 1 - 8.40% Coverage

This a person distinguished for receptivity of novelties, creativity, ingenuity

<Internals\P-46> - § 1 reference coded [8.23% Coverage]

Reference 1 - 8.23% Coverage

precise comprehension, abstract thinking, synthesis of different subjects

<Internals\P-52> - § 1 reference coded [7.33% Coverage]

Reference 1 - 7.33% Coverage

The learner distinguishes himself from others for his intellect

<Internals\P-54> - § 1 reference coded [1.15% Coverage]

Reference 1 - 1.15% Coverage

intellect

<Internals\P-67> - § 1 reference coded [13.18% Coverage]

Reference 1 - 13.18% Coverage

The child's wishes and abilities to know some things deeper and more extensively

<Internals\P-70> - § 1 reference coded [1.34% Coverage]

Reference 1 - 1.34% Coverage

intellect

<Internals\P-74> - § 1 reference coded [8.51% Coverage]

Reference 1 - 8.51% Coverage

This is the learner who has deep intelligence

<Internals\Post-01> - § 1 reference coded [3.60% Coverage]

Reference 1 - 3.60% Coverage

This is general intellectual ability

<Internals\Post-05> - § 1 reference coded [4.64% Coverage]

Reference 1 - 4.64% Coverage

It is a person having developed intellect,

<Internals\Post-06> - § 2 references coded [1.82% Coverage]

Reference 1 - 1.26% Coverage

Intellect

Reference 2 - 0.56% Coverage

mind

<Internals\Post-15> - § 1 reference coded [1.27% Coverage]

Reference 1 - 1.27% Coverage

Intellect

<Internals\Post-17> - § 1 reference coded [0.32% Coverage]

Reference 1 - 0.32% Coverage

IQ

<Internals\Post-19> - § 1 reference coded [1.95% Coverage]

Reference 1 - 1.95% Coverage

High intellect

<Internals\Post-30> - § 1 reference coded [4.64% Coverage]

Reference 1 - 4.64% Coverage

These are both general intellectual

<Internals\Post-31> - § 1 reference coded [3.83% Coverage]

Reference 1 - 3.83% Coverage

General intellectual abilities

<Internals\Post-35> - § 1 reference coded [1.53% Coverage]

Reference 1 - 1.53% Coverage

universality,

<Internals\Post-36> - § 1 reference coded [9.89% Coverage]

Reference 1 - 9.89% Coverage

Innate abilities for certain-intellectual, artistic, motory –activity

<Internals\Post-39> - § 1 reference coded [2.00% Coverage]

Reference 1 - 2.00% Coverage

Higher intellect

Name: Quick

<Internals\P-02> - § 1 reference coded [1.70% Coverage]

Reference 1 - 1.70% Coverage

Quick orientation

<Internals\P-08> - § 1 reference coded [3.38% Coverage]

Reference 1 - 3.38% Coverage

Quick perception

<Internals\P-14> - § 2 references coded [7.22% Coverage]

Reference 1 - 3.19% Coverage

Ability to grasp new ideas quickly

Reference 2 - 4.03% Coverage

prompt solution of non-standard assignments

<Internals\P-18> - § 1 reference coded [5.41% Coverage]

Reference 1 - 5.41% Coverage

Ability to process new information quickly

<Internals\P-20> - § 1 reference coded [4.24% Coverage]

Reference 1 - 4.24% Coverage

Quick orientation, perception

<Internals\P-27> - § 1 reference coded [8.51% Coverage]

Reference 1 - 8.51% Coverage

Ability to express one's knowledge and opinion quickly

<Internals\P-29> - § 1 reference coded [5.24% Coverage]

Reference 1 - 5.24% Coverage

Quick, precise grasp of knowledge.

<Internals\P-31> - § 1 reference coded [3.33% Coverage]

Reference 1 - 3.33% Coverage

Quick mastering and reproduction

<Internals\P-42> - § 1 reference coded [2.06% Coverage]

Reference 1 - 2.06% Coverage

quick orientation

<Internals\P-46> - § 1 reference coded [1.92% Coverage]

Reference 1 - 1.92% Coverage

Quick orientation

<Internals\P-50> - § 1 reference coded [2.05% Coverage]

Reference 1 - 2.05% Coverage

Quick orientation

<Internals\P-51> - § 1 reference coded [5.88% Coverage]

Reference 1 - 5.88% Coverage

orients himself quickly in different situations

<Internals\P-53> - § 1 reference coded [6.11% Coverage]

Reference 1 - 6.11% Coverage

has quick orientation, can change the tone of activity easily

<Internals\P-62> - § 1 reference coded [8.89% Coverage]

Reference 1 - 8.89% Coverage

A child masters the teaching material quickly enough

<Internals\P-64> - § 1 reference coded [5.22% Coverage]

Reference 1 - 5.22% Coverage

helps the person to solve problems quickly

<Internals\P-65> - § 1 reference coded [4.32% Coverage]

Reference 1 - 4.32% Coverage

Quick mastering of new knowledge

<Internals\P-68> - § 1 reference coded [2.81% Coverage]

Reference 1 - 2.81% Coverage

Quick orientation

<Internals\Post-32> - § 1 reference coded [6.75% Coverage]

Reference 1 - 6.75% Coverage

quick orientation not everywhere but in some particular field

<Internals\Post-34> - § 1 reference coded [7.62% Coverage]

Reference 1 - 7.62% Coverage

Learner's ability to fulfill assignments quickly and correctly

Name: Adaptability

<Internals\P-01> - § 1 reference coded [3.88% Coverage]

Reference 1 - 3.88% Coverage

Ability to orient oneself in a new situation

<Internals\P-02> - § 1 reference coded [6.29% Coverage]

Reference 1 - 6.29% Coverage

Quick orientation, ability to single out essential, main points

<Internals\P-08> - § 1 reference coded [3.38% Coverage]

Reference 1 - 3.38% Coverage

Quick perception

<Internals\P-13> - § 1 reference coded [8.46% Coverage]

Reference 1 - 8.46% Coverage

A child who is able to orient himself in his surroundings

<Internals\P-14> - § 2 references coded [7.22% Coverage]

Reference 1 - 3.19% Coverage

Ability to grasp new ideas quickly

Reference 2 - 4.03% Coverage

prompt solution of non-standard assignments

<Internals\P-15> - § 1 reference coded [10.53% Coverage]

Reference 1 - 10.53% Coverage

to orient himself in difficult situations, to find a way out

<Internals\P-17> - § 1 reference coded [9.66% Coverage]

Reference 1 - 9.66% Coverage

Ability to perceive well the information given and to apply it in practice

<Internals\P-18> - § 1 reference coded [15.47% Coverage]

Reference 1 - 15.47% Coverage

Ability to process new information quickly and apply it in practice as well as to find new quality of acquired experience

<Internals\P-20> - § 1 reference coded [4.24% Coverage]

Reference 1 - 4.24% Coverage

Quick orientation, perception

<Internals\P-42> - § 1 reference coded [3.32% Coverage]

Reference 1 - 3.32% Coverage

quick orientation, perception

<Internals\P-46> - § 1 reference coded [1.92% Coverage]

Reference 1 - 1.92% Coverage

Quick orientation

<Internals\P-50> - § 1 reference coded [2.05% Coverage]

Reference 1 - 2.05% Coverage

Quick orientation

<Internals\P-51> - § 1 reference coded [5.88% Coverage]

Reference 1 - 5.88% Coverage

orients himself quickly in different situations

<Internals\P-53> - § 1 reference coded [6.11% Coverage]

Reference 1 - 6.11% Coverage

has quick orientation, can change the tone of activity easily

<Internals\P-68> - § 1 reference coded [2.81% Coverage]

Reference 1 - 2.81% Coverage

Quick orientation

<Internals\Post-32> - § 1 reference coded [6.75% Coverage]

Reference 1 - 6.75% Coverage

quick orientation not everywhere but in some particular field

<Internals\Post-35> - § 1 reference coded [1.29% Coverage]

Reference 1 - 1.29% Coverage

flexibility

Name: Self-motivated

<Internals\P-01> - § 1 reference coded [3.88% Coverage]

Reference 1 - 3.88% Coverage

Ability to orient oneself in a new situation

<Internals\P-07> - § 2 references coded [7.01% Coverage]

Reference 1 - 2.73% Coverage

Able to work by oneself

Reference 2 - 4.28% Coverage

willing to know as much as possible

<Internals\P-10> - § 1 reference coded [20.64% Coverage]

Reference 1 - 20.64% Coverage

Students wish to know more than the syllabus of the subject can give, they are interested and tender themselves the information on the process or phenomenon they are interested in

<Internals\P-23> - § 1 reference coded [5.00% Coverage]

Reference 1 - 5.00% Coverage

Ability to work on one's own

<Internals\P-26> - § 1 reference coded [20.85% Coverage]

Reference 1 - 20.85% Coverage

In my opinion, it is a learner's giftedness to reveal himself in lessons, extra-curricular activities when he himself is interested to develop them. He is interested in everything and continuously asks the teacher for advice, there is no need to make the learner pursue knowledge

<Internals\P-31> - § 1 reference coded [2.18% Coverage]

Reference 1 - 2.18% Coverage

working on one's own

<Internals\P-42> - § 1 reference coded [2.52% Coverage]

Reference 1 - 2.52% Coverage

Learner's receptivity

<Internals\P-51> - § 1 reference coded [1.13% Coverage]

Reference 1 - 1.13% Coverage

Receptive

<Internals\P-60> - § 1 reference coded [1.15% Coverage]

Reference 1 - 1.15% Coverage

interest

<Internals\P-65> - § 1 reference coded [1.22% Coverage]

Reference 1 - 1.22% Coverage

interest

<Internals\P-67> - § 1 reference coded [13.18% Coverage]

Reference 1 - 13.18% Coverage

The child's wishes and abilities to know some things deeper and more extensively

<Internals\P-75> - § 1 reference coded [3.62% Coverage]

Reference 1 - 3.62% Coverage

demand for self-expression

<Internals\Post-13> - § 1 reference coded [2.47% Coverage]

Reference 1 - 2.47% Coverage

who is initiative

<Internals\Post-20> - § 1 reference coded [2.01% Coverage]

Reference 1 - 2.01% Coverage

is initiative

<Internals\Post-22> - § 1 reference coded [10.17% Coverage]

Reference 1 - 10.17% Coverage

Ability to act in some sphere almost on one's own in order to achieve one's aim

<Internals\Post-33> - § 1 reference coded [1.20% Coverage]

Reference 1 - 1.20% Coverage

motivation

<Internals\Post-40> - § 1 reference coded [1.22% Coverage]

Reference 1 - 1.22% Coverage

motivation

Name: Advanced ideas

<Internals\P-10> - § 1 reference coded [20.64% Coverage]

Reference 1 - 20.64% Coverage

Students wish to know more than the syllabus of the subject can give, they are interested and tender themselves the information on the process or phenomenon they are interested in

<Internals\P-11> - § 1 reference coded [13.79% Coverage]

Reference 1 - 13.79% Coverage

To think in a non-stencil way as well as one or a few features manifesting themselves in a particular area

<Internals\P-14> - § 1 reference coded [3.19% Coverage]

Reference 1 - 3.19% Coverage

Ability to grasp new ideas quickly

<Internals\P-16> - § 1 reference coded [4.33% Coverage]

Reference 1 - 4.33% Coverage

erudition, very clever

<Internals\P-30> - § 1 reference coded [6.08% Coverage]

Reference 1 - 6.08% Coverage

exceptional models of contemplation and thinking

<Internals\P-37> - § 1 reference coded [8.40% Coverage]

Reference 1 - 8.40% Coverage

This a person distinguished for receptivity of novelties, creativity, ingenuity

<Internals\P-40> - § 1 reference coded [6.18% Coverage]

Reference 1 - 6.18% Coverage

exceptional thinking as well as ability to generalize and put into practice

<Internals\P-46> - § 1 reference coded [2.03% Coverage]

Reference 1 - 2.03% Coverage

abstract thinking

<Internals\P-50> - § 1 reference coded [2.77% Coverage]

Reference 1 - 2.77% Coverage

recipient, sharp-witted

<Internals\P-53> - § 1 reference coded [5.33% Coverage]

Reference 1 - 5.33% Coverage

Can fulfill different assignments in a qualitative way

<Internals\P-55> - § 1 reference coded [8.64% Coverage]

Reference 1 - 8.64% Coverage

gifted people solve problems in a different way than others

<Internals\P-57> - § 1 reference coded [12.16% Coverage]

Reference 1 - 12.16% Coverage

Ability to grasp the problem easily and find the way for its solution

<Internals\P-75> - § 2 references coded [4.73% Coverage]

Reference 1 - 3.62% Coverage

demand for self-expression

Reference 2 - 1.11% Coverage

thinking

<Internals\Post-02> - § 1 reference coded [16.11% Coverage]

Reference 1 - 16.11% Coverage

This is the ability to think abstractly, perceive the world, apply practically the knowledge and skills gained, ability to generalize

<Internals\Post-05> - § 1 reference coded [2.32% Coverage]

Reference 1 - 2.32% Coverage

having gripping ideas

Name: Curiosity

<Internals\P-02> - § 1 reference coded [0.90% Coverage]

Reference 1 - 0.90% Coverage

curiosity

<Internals\P-07> - § 2 references coded [7.13% Coverage]

Reference 1 - 2.97% Coverage

interested in everything

Reference 2 - 4.16% Coverage

willing to know as much as possible

<Internals\P-10> - § 1 reference coded [20.64% Coverage]

Reference 1 - 20.64% Coverage

Students wish to know more than the syllabus of the subject can give, they are interested and tender themselves the information on the process or phenomenon they are interested in

<Internals\P-14> - § 1 reference coded [2.34% Coverage]

Reference 1 - 2.34% Coverage

interest in everything

<Internals\P-15> - § 1 reference coded [10.53% Coverage]

Reference 1 - 10.53% Coverage

to orient himself in difficult situations, to find a way out

<Internals\P-20> - § 1 reference coded [4.24% Coverage]

Reference 1 - 4.24% Coverage

wish to learn more and more

<Internals\P-26> - § 1 reference coded [20.85% Coverage]

Reference 1 - 20.85% Coverage

In my opinion, it is a learner's giftedness to reveal himself in lessons, extra-curricular activities when he himself is interested to develop them. He is interested in everything and continuously asks the teacher for advice, there is no need to make the learner pursue knowledge

<Internals\P-29> - § 1 reference coded [4.04% Coverage]

Reference 1 - 4.04% Coverage

Is interested in everything

<Internals\P-30> - § 1 reference coded [5.10% Coverage]

Reference 1 - 5.10% Coverage

at the same time discovering something new

<Internals\P-60> - § 1 reference coded [1.15% Coverage]

Reference 1 - 1.15% Coverage

interest

<Internals\P-65> - § 1 reference coded [1.22% Coverage]

Reference 1 - 1.22% Coverage

interest

<Internals\P-67> - § 1 reference coded [13.18% Coverage]

Reference 1 - 13.18% Coverage

The child's wishes and abilities to know some things deeper and more extensively

<Internals\P-75> - § 1 reference coded [1.25% Coverage]

Reference 1 - 1.25% Coverage

curiosity

Name: Other

<Internals\P-03> - § 1 reference coded [14.38% Coverage]

Reference 1 - 14.38% Coverage

2. Inborn abilities + favourable surroundings +purposive education +
encouragement +possibility to realize one's potential

<Internals\P-28> - § 1 reference coded [10.96% Coverage]

Reference 1 - 10.96% Coverage

This concept is very wide, giftedness can manifest itself in a lot of fields

<Internals\P-59> - § 1 reference coded [8.70% Coverage]

Reference 1 - 8.70% Coverage

Mind+ diligence+ independence+ nontraditional thinking

<Internals\P-63> - § 1 reference coded [7.52% Coverage]

Reference 1 - 7.52% Coverage

This is wealth which under favorable circumstances becomes material

<Internals\P-70> - § 1 reference coded [2.67% Coverage]

Reference 1 - 2.67% Coverage

General giftedness

<Internals\P-71> - § 1 reference coded [0.27% Coverage]

Reference 1 - 0.27% Coverage

NR

<Internals\Post-04> - § 1 reference coded [7.92% Coverage]

Reference 1 - 7.92% Coverage

Now I can indicate Reuzule, Stenberg and other scientists' scales of evaluating giftedness

<Internals\Post-06> - § 1 reference coded [3.92% Coverage]

Reference 1 - 3.92% Coverage

useful work, communicability

<Internals\Post-28> - § 1 reference coded [0.25% Coverage]

Reference 1 - 0.25% Coverage

NR

<Internals\Post-35> - § 1 reference coded [0.94% Coverage]

Reference 1 - 0.94% Coverage

Oneness,

<Internals\Post-37> - § 1 reference coded [6.89% Coverage]

Reference 1 - 6.89% Coverage

I cannot make any definition suitable for Lithuania

<Internals\Post-42> - § 1 reference coded [2.35% Coverage]

Reference 1 - 2.35% Coverage

Fits everywhere

Name: Self-actualization

<Internals\P-75> - § 1 reference coded [3.62% Coverage]

Reference 1 - 3.62% Coverage

demand for self-expression

<Internals\Post-05> - § 1 reference coded [3.53% Coverage]

Reference 1 - 3.53% Coverage

wishing to self-realize himself

<Internals\Post-07> - § 1 reference coded [10.59% Coverage]

Reference 1 - 10.59% Coverage

It is when a person has an opportunity to self-actualize himself in some field especially

<Internals\Post-18> - § 1 reference coded [3.80% Coverage]

Reference 1 - 3.80% Coverage

requires attention for himself

<Internals\Post-21> - § 1 reference coded [7.50% Coverage]

Reference 1 - 7.50% Coverage

It is the ability to find one's place in life painlessly

<Internals\Post-22> - § 1 reference coded [10.17% Coverage]

Reference 1 - 10.17% Coverage

Ability to act in some sphere almost on one's own in order to achieve one's aim

<Internals\Post-35> - § 1 reference coded [1.53% Coverage]

Reference 1 - 1.53% Coverage

independence

Name: Leadership

<Internals\Post-01> - § 1 reference coded [2.20% Coverage]

Reference 1 - 2.20% Coverage

ability to be a leader

<Internals\Post-15> - § 1 reference coded [3.11% Coverage]

Reference 1 - 3.11% Coverage

ability to be a leader

<Internals\Post-18> - § 1 reference coded [4.04% Coverage]

Reference 1 - 4.04% Coverage

ability to influence surroundings

<Internals\Post-19> - § 1 reference coded [1.39% Coverage]

Reference 1 - 1.39% Coverage

leadership

<Internals\Post-30> - § 1 reference coded [1.59% Coverage]

Reference 1 - 1.59% Coverage

leadership

Name: Perseverance and persistence

<Internals\P-02> - § 1 reference coded [0.90% Coverage]

Reference 1 - 0.90% Coverage

diligence

<Internals\P-26> - § 1 reference coded [20.85% Coverage]

Reference 1 - 20.85% Coverage

In my opinion, it is a learner's giftedness to reveal himself in lessons, extra-curricular activities when he himself is interested to develop them. He is

interested in everything and continuously asks the teacher for advice, there is no need to make the learner pursue knowledge

<Internals\P-48> - § 1 reference coded [5.22% Coverage]

Reference 1 - 5.22% Coverage

plus purposeful constant work

<Internals\P-59> - § 1 reference coded [1.40% Coverage]

Reference 1 - 1.40% Coverage

diligence

<Internals\P-60> - § 1 reference coded [1.15% Coverage]

Reference 1 - 1.15% Coverage

diligence

CODING REPORTS (9 coding reports with multiple subcategories)

SURVEY QUESTIONS (9 coding reports with 83 categories and 42 subcategories)

10. Q1-Read or listened to lectures (3 categories)

- Yes-Have read or listened to lectures
- No-Have not read or listened to lectures
- Not asked if read or listened to lectures

11. Q2-Concept of giftedness (15 categories)

- Aptitude and talent
- Achievement and Mastery
- Critical thinking
- Natural abilities
- Creativity
- Intellect
- Quick
- Adaptability
- Self-motivated
- Advanced ideas
- Curiosity
- Other
- Self-actualization
- Leadership
- Perseverance and persistence

12. Q3-Qualities of gifted learners (22 categories)

- Critical thinking - analytical
- Achievement - mastering - fulfilling
- Curious
- Creative
- Multiple sources & interests
- Learn quickly
- Disciplined
- Actively engaged - receptive
- Adaptable - quick orientation
- Independence - individuality
- Other
- Self-motivation
- Intellectual
- Communication
- Leadership
- Perseverance and persistence
- Memory and retention
- Clever - quick-witted
- Intuitive - perceptive
- Confident
- Physical
- Talented

13. Q4-Methods used to identify GC (9 categories)

- Testing and evaluation
- Assignments & tasks (8 subcategories)
 - Creative
 - Logical
 - Individual
 - Differentiated - nonstandard - special
 - Projects
 - Additional
 - Type not specified
 - Group & team work
- Surveys & questionnaires
- Observation
- Conversations
- Information from others
- Contests & games
- Child expresses interest
- Other

14. Q5-Percent of GC at school (5 categories)

- 0-10% GC at school
- 11-20% GC at school
- 21-30% GC at school
- 31-40% GC at school

- 41% or more GC at school
15. Q6-Teaching requirements for GC (6 categories)
- Teaching methods (8 subcategories)
 - Differentiated assignments
 - Complex assignments
 - Multiple resources
 - Individualized work
 - Novelty
 - Additional assignments
 - Use of technology
 - Motivate
 - Teacher planning & preparation
 - Teacher qualifications & attitude
 - Facilities
 - Other
-
- GC student characteristics (12 subcategories)
 - Attention-seeking
 - Knowledge-seeking
 - Pace - quick
 - Self-expression
 - Talented
 - Critical thinking
 - Engaged - active - bold
 - Performance
 - Curious
 - Self actualization
 - Communication skills
 - Self-motivated
16. Q7-Teachers meeting needs of GC at school (7 categories)
- Rank 0-1 or no
 - Rank 2-3
 - Rank 4-5
 - Yes-rank not given
 - NR
-
- How achieved (5 subcategories)
 - Individualized differentiated additional assignments
 - Other teaching methods
 - Teacher planning and preparation
 - Extracurricular Contests Olympiads Clubs
 - Materials and resources
 - Changes needed (9 subcategories)
 - Systemic
 - Diverse student learning levels
 - Professional development for teachers

- Syllabi and curriculum
- Time
- Financial
- Reduced class size
- Parents
- Restrictions on teachers

17. Q8-Needed to identify & make syllabi work for GC (11 categories)

- Syllabi - specialized for GC
- Financial
- Professional development
- Educational resources & materials
- Systemic
- Methodology
- Testing & questionnaires
- Other
- Experience of others
- Facilities
- Class structure

18. Q9-Changes in understanding after lecture & seminars (5 categories)

- No
- Partially
- Much
- Very much
- NR

CODING REPORTS	NO OF PRE	% OF 76 PRE	NO OF POST	% OF 43 POST	NO OF DOCS	% OF 119 DOCS
	(Total 76)		(Total 43)		(Total 119)	
Q1-Read or listened to lectures						
Yes-Have read or listened to lectures	36	47%	0	0%	36	30%
No-Have not read or listened to lectures	40	53%	0	0%	40	34%
Not asked if read or listened to lectures	0	0%	43	100%	43	36%
Q2-Concept of giftedness						
Aptitude and talent	30	39%	20	47%	50	42%
Achievement and Mastery	27	36%	21	49%	48	40%
Critical thinking	24	32%	10	23%	34	29%
Natural abilities	27	36%	4	9%	31	26%
Creativity	13	17%	15	35%	28	24%
Intellect	17	22%	11	26%	28	24%
Quick	17	22%	2	5%	19	16%
Adaptability	15	20%	2	5%	17	14%
Self-motivated	12	16%	5	12%	17	14%
Advanced ideas	13	17%	2	5%	15	13%
Curiosity	13	17%	0	0%	13	11%
Other	6	8%	6	14%	12	10%
Self-actualization	1	1%	6	14%	7	6%
Leadership	0	0%	5	12%	5	4%
Perseverance and persistence	5	7%	0	0%	5	4%
CODING REPORTS	NO OF PRE (76)	% OF 76 PRE	NO OF POST (43)	% OF 43 POST	NO OF 119 DOCS	
Q3-Qualities of gifted learners						
Critical thinking - analytical	29	38%	23	53%	52	44%
Achievement - mastering - fulfilling	30	39%	18	42%	48	40%
Curious	27	36%	14	33%	41	34%
Creative	13	17%	22	51%	35	29%
Multiple sources & interests	25	33%	9	21%	34	29%
Learn quickly	21	28%	9	21%	30	25%
Disciplined	21	28%	7	16%	28	24%
Actively engaged - receptive	19	25%	7	16%	26	22%
Adaptable - quick orientation	19	25%	6	14%	25	21%
Independence - individuality	10	13%	10	23%	20	17%
Other	15	20%	5	12%	20	17%
Self-motivation	12	16%	8	19%	20	17%
Intellectual	7	9%	10	23%	17	14%
Communication	9	12%	7	16%	16	13%
Leadership	1	1%	13	30%	14	12%
Perseverance and persistence	11	14%	3	7%	14	12%
Memory and retention	5	7%	6	14%	11	9%
Clever - quick-witted	5	7%	4	9%	9	8%
Intuitive - perceptive	4	5%	3	7%	7	6%

Confident	4	5%	1	2%
Physical	3	4%	0	0%
Talented	1	1%	1	2%
CODING REPORTS	NO OF PRE (76)	% OF 76 PRE	NO OF POST (43)	% OF 43 POST
Q4-Methods used to identify GC				
Testing and evaluation	37	49%	35	81%
Assignments & tasks	36	47%	5	12%
<i>Creative</i>	14	18%	5	12%
<i>Logical</i>	6	8%	1	2%
<i>Individual</i>	6	8%	1	2%
<i>Differentiated - nonstandard - special</i>	5	7%	1	2%
<i>Projects</i>	3	4%	1	2%
<i>Additional</i>	3	4%	1	2%
<i>Type not specified</i>	3	4%	0	0%
<i>Group & team work</i>	2	3%	0	0%
Surveys & questionnaires	15	20%	24	56%
Observation	24	32%	12	28%
Conversations	21	28%	11	26%
Information from others	4	5%	17	40%
Contests & games	9	12%	0	0%
Child expresses interest	3	4%	5	12%
Other	5	7%	3	7%
Q5-Percent of GC at school				
0-10% GC at school	37	49%	38	88%
11-20% GC at school	28	37%	3	7%
21-30% GC at school	2	3%	2	5%
31-40% GC at school	4	5%	0	0%
41% or more GC at school	5	7%	0	0%
CODING REPORTS	NO OF PRE (76)	% OF 76 PRE	NO OF POST (43)	% OF 43 POST
Q6-Teaching requirements for GC				
Teaching methods	51	67%	18	42%
<i>Differentiated assignments</i>	19	25%	7	16%
<i>Complex assignments</i>	12	16%	7	16%
<i>Multiple resources</i>	12	16%	6	14%
<i>Individualized work</i>	12	16%	3	7%
<i>Novelty</i>	12	16%	3	7%
<i>Additional assignments</i>	10	13%	2	5%
<i>Use of technology</i>	7	9%	0	0%
<i>Motivate</i>	2	3%	1	2%
Teacher planning & preparation	8	11%	6	14%
Teacher qualifications & attitude	6	8%	1	2%
Facilities	5	7%	2	5%
Other	6	8%	2	5%
GC student characteristics	36	47%	29	67%
<i>Attention-seeking</i>	11	14%	9	21%

5	4%
3	3%
2	2%
NO OF DOCS (119)	% OF 119 DOCS
72	61%
41	34%
19	16%
7	6%
7	6%
6	5%
4	3%
4	3%
3	3%
2	2%
39	33%
36	30%
32	27%
21	18%
9	8%
8	7%
8	7%
75	63%
31	26%
4	3%
4	3%
5	4%
69	58%
26	22%
19	16%
18	15%
15	13%
15	13%
12	10%
7	6%
3	3%
14	12%
7	6%
7	6%
8	7%
65	55%
20	17%

<i>Knowledge-seeking</i>	10	13%	7	16%	17	14%
<i>Pace - quick</i>	8	11%	4	9%	12	10%
<i>Self-expression</i>	4	5%	6	14%	10	8%
<i>Talented</i>	3	4%	6	14%	9	8%
<i>Critical thinking</i>	6	8%	2	5%	8	7%
<i>Engaged - active - bold</i>	4	5%	4	9%	8	7%
<i>Performance</i>	5	7%	2	5%	7	6%
<i>Curious</i>	4	5%	2	5%	6	5%
<i>Self actualization</i>	2	3%	4	9%	6	5%
<i>Communication skills</i>	4	5%	1	2%	5	4%
<i>Self-motivated</i>	2	3%	1	2%	3	3%
CODING REPORTS	NO OF PRE (76)	% OF 76 PRE	NO OF POST (43)	% OF 43 POST	NO OF DOCS (119)	% OF 119 DOCS
Q7-Teachers meeting needs of GC at school						
Rank 0-1 or no	17	22%	5	12%	22	18%
Rank 2-3	36	47%	26	60%	62	52%
Rank 4-5	9	12%	5	12%	14	12%
Yes-rank not given	13	17%	4	9%	17	14%
NR	1	1%	3	7%	4	3%
How achieved						
Individualized differentiated additional assignments	33	43%	20	47%	53	45%
Other teaching methods	10	13%	9	21%	19	16%
Teacher planning and preparation	10	13%	7	16%	17	14%
Extracurricular Contests Olympiads Clubs	11	14%	4	9%	15	13%
Materials and resources	2	3%	1	2%	3	3%
Changes needed						
Systemic	4	5%	10	23%	14	12%
Diverse student learning levels	13	17%	0	0%	13	11%
Professional development for teachers	5	7%	3	7%	8	7%
Syllabi and curriculum	3	4%	5	12%	8	7%
Time	3	4%	2	5%	5	4%
Financial	1	1%	3	7%	4	3%
Reduced class size	2	3%	0	0%	2	2%
Parents	1	1%	0	0%	1	1%
Restrictions on teachers	1	1%	0	0%	1	1%
Q8-Needed to identify & make syllabi work for GC						
Syllabi - specialized for GC	23	30%	11	26%	34	29%
Financial	19	25%	11	26%	30	25%
Professional development	16	21%	14	33%	30	25%
Educational resources & materials	18	24%	11	26%	29	24%
Systemic	16	21%	10	23%	26	22%
Methodology	13	17%	9	21%	22	18%
Testing & questionnaires	8	11%	10	23%	18	15%

Other	15	20%	2	5%
Experience of others	7	9%	8	19%
Facilities	11	14%	2	5%
Class structure	4	5%	3	7%
CODING REPORTS	NO OF PRE (76)	% OF 76 PRE	NO OF DOCS (43)	% OF 43 DOCS
Q9-Changes in understanding after lecture & seminars				
1. No	0	0%	3	7%
2. Partially	0	0%	17	40%
3. Much	0	0%	19	44%
4. Very much	0	0%	3	7%
NR	0	0%	1	2%

17	14%
15	13%
13	11%
7	6%
NO OF DOCS (119)	% OF 119 DOCS
not applicable	not applicable

Appendix L

Interview Notes

Note: Additional interviews (tapes) are available upon request.

Interview with school psychologist who was the leader of the screening committee on 23/02/05, Case Study School, Kaunas.

The screening committee group was created for identification of gifted pupils and consisted of:

1. psychologist
2. assistant headmaster
3. Teacher D, English teacher
4. mathematics teacher
5. science teacher

Group discussed and met few times. Assistant headmaster sent letter to parents. Received agreements and disagreements for pupils to participate.

“yes” – made questionnaire example of mine, modified to fit Case Study School.

Previous knowledge that the psychologist had of creative kids from the school helped to ask questions about gifted.

Nomination forms utilised were:

1. peer
2. parents
3. student himself
4. teacher

The forms were distributed to teachers, classmates, and parents. Teachers asked pupils if they wanted to participate [in the identification process]. Pupils who asked to fill out a nomination form, return it to the psychologist, and reflect on which classmates could be creative. Parental permission was required for pupils to participate in the gifted screening process.

It took 2 to 3 weeks to collect questionnaires. The deadline for completed forms to be submitted to the psychologist was the end of Nov. 2003; but, in reality, all forms were completed in January because some teachers did not make the deadline of returning completed questionnaires. Teachers did not take time to write comments on the forms to justify high marks given to students. It was the classroom peers who wrote the most amount of comments.

A most difficult task was to find out which pupils creative.

Around 899 nomination forms were given out from Case Study School.

The screening committee discussed how to decide which nominated candidates actually qualified as ‘gifted’. Many pupils received recommendations in all four areas: teachers; parents; self, and classmates. It was agreed that pupils must receive nominations in all 4 areas, but more information was needed to make the final decisions and cut down on numbers of pupils nominated.

The screening committee agreed that individual pupils who were nominated in all four areas were now to be interviewed and examined for social skills, self-independence, working habits, and thinking skills to provide additional information about individuals.

Grades 4 - 8 were the only grades from Case Study School involved in the nomination process. The screening committee discussed this selection with both the headmaster and assistant headmaster of the school. They hoped to continue the process the following year by opening nominations up to additional grade levels.

It was found that out of 166 pupils who were initially identified as 'creative' at the beginning of the screening process, 102 of them were identified as 'creative' by the screening committee. If the number of questionnaires was not so great, the school psychologist would have given the Torrance test to the pupils who were screened as well.

The psychologist created an *Excel* sheet for the Case Study School teachers to think about characteristics of giftedness carefully. Some teachers misunderstood the information and were impatient in filling out questionnaires. It was believed that teachers needed to become more informed and involved before giving the nomination forms to complete next time. The lack of clear communication was a problem.

The psychologist tried to be strict with the deadline for the completion and return of the nomination forms. This, too, was a problem. Teachers were asked to not leave the forms around in their classroom and to return them to a screening committee member.

Some parents called Case Study School with questions when they received the nomination forms and permission forms "What does it mean? Will it go on forever?" The parents were informed by the forms only, and had no opportunity to ask questions at a meeting with the screening committee or administrators. The psychologist didn't talk to parents [of the gifted] because [she] didn't know what to suggest with the cutbacks. She thought it was sad that the school experienced financial problems and couldn't continue the gifted identification process. The school psychologist said that more information should be given to parents about very important meetings with parents at the very beginning of the identification process.

The problem of a change in the position of assistant headmaster impacted the screening committee because he was a key member. The environment at Case Study School was now unstable. The gifted identification process couldn't continue with stability and security that it once had [and now needed] to identify gifted pupils. All systematic work [on gifted identification] stopped at this time.

Those Lithuanian teachers [who attended the professional development program] began to take on added [responsibility] and do projects with pupils [who were] identified as gifted. There was talk about [offering] a reward for teachers who worked with gifted (6 additional hours of pay). The headmaster changed that.

He was faced with [the practicalities] of the end [of a school] year. Thus, teachers worked separately:

1. Mathematics teacher – published a book summarizing work with gifted pupils that involved Internet problem-solving, and his gifted pupils won Olympiad [contests].
2. Primary English teacher – her students won 2 awards in a foreign language national competition of translation.
3. Secondary English teacher – her pupils wrote books, won first prize, and displayed them at the Town Hall.

Teachers [who had attended the professional development training] worked with gifted pupils each day. They lacking addition support, hours and money; they faced with many difficulties. [It is not easy] working with gifted relationships and personalities. These teachers had to find the time for [gifted pupils].

[It was] found many pupils were gifted in art [at Case Study School]. [However, there were] no regular lessons for the arts and drama [offered]. [There was] only one regular lesson for art and music. In the past, Case Study School was known for [its] drama and arts, and lots of enrichment. Now [the] school is threatened [of] being closed down and there are curriculum cutbacks.

The screening committee examined the nomination forms and the *Excel* sheet compiled on the candidates only to notice that there was no representation for the subject of screening for English. The English teacher had taken her pupils on a field trip for a national competition; upon her return, the teacher filled out her nomination forms.

Recommendations:

1. Parents should be more informed about what it means to have gifted children and how to find out about his skills/subjects.
2. Parental permission and information needed clarification.
3. [It was thought that] fewer nomination forms, maybe 400 instead of 800, should be distributed [in the future]. The [identification screening] process should be a shorter process and not take as much time. [It should] not [be] as open-ended, [but, rather,] more focused.

All of the [completed] nomination forms were placed in the library so that the information was available for teachers. The drama teachers used the information in her master's degree. The school psychologist kept copies of all of the papers as well. The [screening process] work was finished in January 2004.

There is a very big need for pupils to be identified as gifted [at Case Study School]. It is important for their self-confidence, strength that teachers think of them as gifted, personal [satisfaction], and self-evaluation. It is also important for teachers to feel [they identified correctly], "Yes, I was right. This student was gifted and I have to do something to apply his needs in the earning process."

[Case Study School] needs to work with parents and teachers [who] believe it's necessary and important for the school [to identify and recognise gifted pupils].

[Case Study School] also needs materials and books, as there [are none] in existence now [to teach gifted pupils]. The psychologist thinks this can be done better with a competency centre to house materials.

“As the psychologist, what would be my role to help and find out through talking and tests what are the most important needs? Gifted pupils have to find the way of relationships with classmates, solving problems, giving tests that would help to identify themselves as teenagers, they are trying to find out who they are, what they’ll be in the future.

It is very important that teachers help to identify gifted pupils to the psychologist. If I know these students are gifted, what can I do? Maybe, I can run a group to share ideas and participate.”

Appendix M

Participant permission: interviewing, videotaping, photographing, etc.

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**LEIDIMAS DEMONSTRUOTI FOTO
NUOTRAUKAS AR VAIZDO ĮRAŠUS**

- Esu informuota(s), kad Oksfordo Brookes universiteto (Anglija) doktorantė ir lektorė Monita Leavitt atlieka mokslinį tiriamąjį darbą švietimo srityje apie gabiųjų moksleivių identifikaciją Lietuvos mokyklose.
- Esu informuota(s), kad Kauno technologijos universitetas ir Oksfordo Brookes universitetas pasilieka teisę fotografuoti ir filmuoti jų organizuojamus praktinius užsiėmimus bei projektui skirtus pokalbius, o taip pat universitetai ar jų įgalioti asmenys turi teisę naudoti surinktą medžiagą, įskaitant ir turimus garso ir vaizdo įrašus, fotonuotraukas mokymo ar tiriamojo mokslinio darbo tikslais.
- Aukščiau minėtas mokslinis darbas gali būti platinamas, transliuojamas arba pristatomas bet kokia masinės informacijos forma (internetu ar kompiuterine programa), bei publikuojamas ar naudojamas mokymo tikslais Kauno technologijos universitete ir Oksfordo Brookes universitete ar universitetų įgaliotų asmenų darbe. Šį projektą universitetai gali naudoti ir reklaminiiais tikslais.
- Sutinku, kad vieninteliai teisėti šių nuotraukų, garso ir vaizdo įrašų turėtojai yra Kauno technologijos universitetas ir Oksfordo Brookes universitetas.
- Sutinku, kad vaizdo įrašai, nuotraukos, kuriose nebus nurodyta mano pavardė, būtų demonstruojami.

Dalyvis (pavardė, vardas)

Data



Appendix N

Twenty focus questions sent to Case Study School before the researcher's site visit in February 2005 to prepare the teachers for interviews and to learn about the implantation of the gifted identification process. Presented first is an overview of the questions in both Lithuanian and English, followed by the actual copy sent to Case Study School.

Tyrimo klausimai mokytojams

1. Kaip gabūs moksleiviai atpažįstami jūsų mokykloje? Į ką labiausiai kreipiamas dėmesys?
2. Įvertinkite Gabumų atpažinimo modelio efektyvumą vertinimo skalėje nuo 0 iki 5 (0- žemas, 5- aukštas)
3. Kokie yra jūsų patys efektyviausi gabių moksleivių atpažinimo būdai ir/ar strategijos?
4. Kaip atpažinimo procesas yra stebimas ir vertinamas?
5. Koks procentas moksleivių jūsų mokykloje yra identifikuoti kaip gabūs?
6. Koks jų amžius ir lytis?
7. Su kokiomis problemomis susiduriate, atpažindami gabius moksleivius?
8. Kokios problemos iškyla, taikant gabių moksleivių atpažinimo modelį?
9. Kaip jūs suvokiate gabumus?
10. Kokiomis savybėmis pasižymi gabus mokinius?
11. Ar pasikeitė jūsų supratimas, kas yra gabumai, kuriant gabių moksleivių atpažinimo modelį? Jei taip, tuomet kaip?
12. Kokie yra gabių moksleivių poreikiai jūsų mokykloje?
13. Kokį supratimą apie šį modelį turi patys gabūs moksleiviai? Ar jie įtraukiami į šį procesą?
14. Kokį supratimą apie šį modelį turi gabių moksleivių tėvai? Ar jie įtraukiami į šį procesą?
15. Kaip šį procesą suvokia tų gabių moksleivių tėvai, kurie nors ir dalyvavo gabumų atpažinimo procese, bet nebuvo pripažinti gabiais?
16. Kaip supranta šį atpažinimo procesą tie moksleiviai, kurie dalyvavo gabumų atpažinimo procese, bet nebuvo pripažinti gabiais?
17. Kaip mokytoja (-as), ką jūs ir/ar jūsų kolegos daro, kad patenkintumėte gabių moksleivių akademinis ir socialinius poreikius jūsų mokykloje?
18. Įvertinkite jūsų darbo efektyvumą, patenkinant gabių moksleivių poreikius, vertinimo skalėje nuo 0 iki 5 (0-žemas, 5- aukštas)
19. Kokios pagalbos jums ir jūsų kolegoms reiktų, kad galėtumėte efektyviai patenkinti gabių moksleivių poreikius jūsų mokykloje?
20. Kokius pasiūlymus ar komentarus norėtumėte pareikšti?

research Questions for Teachers

1. How are gifted pupils identified in your school? What specific areas of ability are addressed?
2. On a scale of 0 to 5 (0 is low, 5 is high), how effective is your Model of Gifted Identification?
3. What are your most effective tools and/or strategies for identifying gifted pupils?
4. How is the identification process monitored and evaluated?
5. What percentage of pupils has been identified as gifted in your school?
6. What is the gender and age of the identified gifted pupils?
7. What are the challenges to identification of gifted pupils?
8. What are some of the problems with the Gifted Identification Model?
9. What is your concept of giftedness?
10. What are the qualities of a gifted learner?

11. Did your concept of giftedness change following the development of the model of gifted identification? If so, how?
12. What are the requirements of gifted pupils in your school?
13. What perceptions do gifted pupils have of the identification process? Are they involved in the process?
14. What is the perception of parents of gifted pupils who have been identified by the model? Are they involved in the process?
15. What is the perception of parents of gifted pupils who have not been identified by the Model even though their child may have experienced the identification process?
16. What is the perception of students who have not been identified by the model even though they may have experienced the identification process?
17. As a teacher, what do you and/or other teachers do to meet the academic and social needs of gifted pupils in your school?
18. On a scale of 0 to 5 (0 being low, 5 is high) how effective is your teaching for meeting the needs of gifted pupils in your class?
19. What assistance do you and other teachers need to effectively meet the needs of gifted pupils in your school?
20. What comments or suggestions would you like to add or ask?

Tyrimo klausimai mokytojams

1. Kaip gabūs moksleiviai atpažįstami jūsų mokykloje? Į ką labiausiai kreipiamas dėmesys?
2. Įvertinkite Gabumų atpažinimo modelio efektyvumą vertinimo skalėje nuo 0 iki 5 (0- žemas, 5- aukštas)?
3. Kokie yra jūsų patys efektyviausi gabių moksleivių atpažinimo būdai ir/ar strategijos?
4. Kaip atpažinimo procesas yra stebimas ir vertinamas?
5. Koks procentas moksleivių jūsų mokykloje yra identifikuoti kaip gabūs?
6. Koks jų amžius ir lytis?
7. Su kokiomis problemomis susiduriate, atpažindami gabius moksleivius?



8. Kokios problemos iškyła, taikant gabių moksleivių atpažinimo modelį?
9. Kaip jūs suvokiate gabumus?
10. Kokiomis savybėmis pasižymi gabus mokinys?
11. Ar pasikeitė jūsų supratimas, kas yra gabumai, kuriant gabių moksleivių atpažinimo modelį? Jei taip, tuomet kaip?
12. Kokie yra gabių moksleivių poreikiai jūsų mokykloje?
13. Kokį supratimą apie šį modelį turi patys gabūs moksleiviai? Ar jie įtraukiami į šį procesą?
14. Kokį supratimą apie šį modelį turi gabių moksleivių tėvai? Ar jie įtraukiami į šį procesą?



15. Kaip ši procesą suvokia tų gabių moksleivių tėvai, kurie nors ir dalyvavo gabumų atpažinimo procese, bet nebuvo pripažinti gabiais?
16. Kaip supranta ši atpažinimo procesą tie moksleiviai, kurie dalyvavo gabumų atpažinimo procese, bet nebuvo pripažinti gabiais?
17. Kaip mokytoja (-as), ką jūs ir/ar jūsų kolegos daro, kad patenkintumėte gabių moksleivių akademinis ir socialinius poreikius jūsų mokykloje?
18. Įvertinkite jūsų darbo efektyvumą, patenkinant gabių moksleivių poreikius, vertinimo skalėje nuo 0 iki 5 (0-žemas, 5- aukštas)?
19. Kokios pagalbos jums ir jūsų kolegoms reikėtų, kad galėtumėte efektyviai patenkinti gabių moksleivių poreikius jūsų mokykloje?
20. Kokius pasiūlymus ar komentarus norėtumėte pareikšti?



Appendix O

Ethics forms: research study approval from Oxford Brookes University and Kaunas Technological University.

(Removed for copyright reasons)

(Removed for copyright reasons)

Appendix P

Permission from Case Study School headmaster to name school as Case Study School for this research project.

(Removed for confidentiality reasons)

Appendix Q

The Case Study School screening committee's spread sheet that was created to analyse the pupil-nominations in 20 possible school-related areas.

(Removed for confidentiality reasons)

(Removed for confidentiality reasons)

Appendix R

A short survey sent at the end of the school year (10/06/03) to Kaunas Regional Schools who participated in the professional development programme to learn about the implementation of the gifted identification process.

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June 10, 2003

Labas!

I hope everyone is well. I want to find out if anyone was able to implement any of the information about identifying gifted pupils in your school from my seminars at Kaunas Technological University in January and February.

Please e-mail me at monital@aol.com or write to me with the enclosed envelope to tell me of your progress. Specifically, I'd like to know:

1. **Were gifted pupils identified at your school?** If yes, who identified them? Was a committee established? If yes, who was on the committee?
2. **How many pupils were identified as gifted?** How many girls, how many boys?
3. **How were the gifted pupils identified?** Did you use the Renzulli nomination forms information? If yes, was it peer, parent, teacher, and/or self-nomination?
4. **Were students and parents informed of the identification process?**
5. **Did the information provided at the seminar impact your curriculum or help in the way you teach gifted pupils?** If yes, please describe.

I appreciate you taking time to respond because, as a teacher, I know that this is a very hectic time of year. I will keep you informed as my research on *Identification of Gifted Pupils in Lithuania* continues.

I wish you all a happy and healthy summer!

Aciu,



Monita Leavitt



THE QUEEN'S

Appendix S

Case Study School report on the implementation of the results of Case Study School gifted identification process.

(Removed for copyright reasons)

(Removed for copyright reasons)

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Appendix T

A report from one of the four Kaunas Regional Schools on the implementation of the gifted identification process implementation.

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Appendix U

Newspaper coverage of the research study at Case Study School. English translation page follows:

(Removed for copyright reasons)

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Related Professional Activities

Award

Moravian College *Lifelong Learning Education Award* (pending October 2009).

Conference Presentations

World Gifted Conference, Vancouver, Canada (pending August 2009)

- Change in Lithuanian teachers' perceptions of giftedness: Development of an identification process for gifted education in Lithuania.

University of Winnipeg Teachers Institute, Canada (pending August 2009)

- Lecture: Best Practices in Gifted Education
- Lecture: Differentiation

California Gifted Conference (February 2009)

- Lecture: Best Practices in Gifted Education

MENSA, CT (November 2008)

- Lecture: Best Practices in Gifted Education

Asia-Pacific Gifted Conference, Singapore (July 2008).

- Author session: *Building a Gifted Programme: Identifying and Educating Gifted Students in Your School.*
- Lecture on PhD research: Giftedness Perceptions and Practices of Teachers in Lithuania.

17th Biennial World Gifted Conference, England (August 2007).

- Poster session on PhD research: Change in Lithuanian teachers' perceptions of giftedness - Development of an identification process for gifted education in Lithuania.

National Gifted Conference (NAGC), Minnesota (November 2007).

- Poster session on PhD research: Change in Lithuanian teachers' perceptions of giftedness - Development of an identification process for gifted education in Lithuania.
- Author session: *Building a Gifted Programme: Identifying and Educating Gifted Students in Your School.*
- Panel presentation with Joyce Van Tassel-Baska et al.: Observations of four schools for gifted children in Russia.

12th Annual New England Conference on Gifted and Talented Education (21 October 2006).

- Author session: *Building a Gifted Programme: Identifying and Educating Gifted Students in Your School.*

•
7th Biennial Wallace National Research Symposium on Talent Development. Belin-Blank Centre, University of Iowa, IA (23 April 2004).

5th International Conference on Thinking, University of Leuven, Belgium (22-24 July 2004).

Conference on Perceptions of America in Russian Schools: A Case Study in Educational Change, CT: Council on European Studies at Yale University (2 December 2004).

Consulting

Atheneskolen, Denmark School for the Gifted (14 April 2008).

Connecticut Public Schools, USA (2002-present).

Represented Gifted Education in Exceptional Needs Standards Committee of the *National Board for Professional Teaching Standards and Certification* (NBPTS) (2006-2007).

Lithuania: Rudiliai Basic School, Kupiskis; Anima School, Kaunas, and School of the Millennium, Salcininkai (1999-2004).

Renzulli Online Learning Lab Trainer, CT (2006-Present).

Professional Activities

People To People Gifted Education Delegation to Russia with delegation leader Dr. Joyce Van Tassel-Baska (September 2006).

UNESCO Teacher Education Group Committee. Education for All (EFA) Coordination Working Group for Lithuania, St. Petersburg, Russian Federation (15-18 January 2005).

Who's Who of International Educators (2001).

Publishing

Leavitt, M. (December 2007). *Gifted and Talented International*, Building a gifted Programme: Identifying and Educating Gifted Students in Your School. Vol. 22 (2), pp. 139-140.

Leavitt, M. (2006). *Building a Gifted Programme: Identifying and Educating Gifted Students in Your School*. AZ: Great Potential Press.

Leavitt, M. (Spring 2006). *Impact: Connecticut's Journal for Middle Level Educators*. Teaching to Reach the Gifted and Talented Child. CT: Connecticut Association of Schools, Vol. 11 (1), pp. 18-20.

Leavitt, M. (November 2005). *Global Visions Newsletter*. Identification of Gifted Pupils in Lithuania, Washington, D. C.: National Association for Gifted Children (NAGC), Vol. 11 (1), pp.6-8.

Leavitt, M. (April/May 2005). *American Professional Partnership for Lithuanian Education (APPLE)*. One Teacher's Reflections: Lithuania's Journey and Mine. CT: APPLE, Vol. 15 (1), pp. 3 - 4.

In-service Training in Gifted Education

Denmark Association of the Gifted, Copenhagen Business School: Best Practices for Gifted Kids (5 April 2008).

Visiting Doctoral Student Taught Undergraduate Course in Gifted Education (2002-2003). Oxford Brookes University, England.

Visiting Doctoral Student ReCap Seminar Series (26 June 2003) Westminster Institute of Education, England: Developing the gifts and talents of all students: implications for teaching gifted pupils in Lithuania.

CT Public Schools:

- Bethel Public Schools, Bethel, CT (2006 - present)
- Region #16, Oxford, CT (2007- 2008)
- Manchester, CT (2008)
- Region #15, Southbury, CT (1988 - 2006).