

In what ways does peer coaching contribute to the academic attainment of higher education students?

Jill Andreanoff (2015)

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**In what ways does peer coaching
contribute to the academic attainment
of higher education students?**

Jill Andreanoff

**This thesis is submitted in partial fulfilment of the requirements of the
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ABSTRACT

Peer support interventions have been widely used within the Higher Education sector as a means to enhance student success and retention. However, much of the evidence to measure the impact of mentoring and coaching has relied on anecdotal, self-reported evidence from the participants. In addition there is much confusion in the terms to describe peer support interventions making it difficult to compare and contrast the different programmes. The need for evidence of a more robust, quantitative nature has long been called for by a number of authors such as Jacobi (1991), Capstick (2004) and Medd (2012).

This is a mixed methods case study of an extant coaching programme in Higher Education in the UK. It makes explicit the process of the peer coaching intervention by use of individual case stories and measures the impact of the peer coaching on academic attainment in the form of module grades. In addition, the use of a control group enables a comparison to be made of the academic attainment of non-coached students with those who received peer coaching. Academic behaviour confidence of those who were coached was also measured pre and post-coaching using the Sander and Sanders (2009) ABC questionnaire.

There was found to be a statistically significant impact in the academic attainment of those students who received coaching when compared to those students in the control group who did not. It was seen that the peer coaching had a beneficial impact for particular groups of students such as those in their first year of study and those who were performing less well at the outset as well students within the business school. There was found to be a significant increase in the academic behaviour confidence of those who received coaching as well as a reduced attrition rate when compared to those in the control group.

CHAPTER 1

Introduction

Peer support interventions for students have been implemented for several years by many Higher Education (HE) institutions in order to help resolve a number of different issues. They have been utilised in order to improve retention rates, to improve student satisfaction scores and to support students who face barriers through the widening participation agenda amongst other objectives. Since the 1980s, authors such as Tinto (1983); Astin (1984); Goodlad (1998) and Kur, Palmer and Kish (2003) advocate student involvement with their institution as a means to reduce attrition rates and as a predictor of student success. Astin (1984) reports that peers play a significant role in the development and growth of students. Kur, Palmer and Kish (2003) further demonstrate that what students do during their time as a student is more important than where they study or what they bring to higher education. There is much evidence to suggest that student engagement with their institution has many benefits. Pascarella and Terenzini (2005) propose that individual effort and involvement in the academic, interpersonal and extracurricular offerings at an educational institution will have an impact on outcomes whilst others such as Harper and Quaye (2007) suggest that student engagement develops positive images of self.

The Higher Education Funding Council for England (HEFCE) in 2008 – 2011 provided funding for the phase 1 study of the 'What Works?' review as a means to improve practice within Higher Education Institutions. As part of the Phase 1 report, Thomas (2012) reviewed a number of strategies adopted by Higher Education institutions in order to search for a model to improve student engagement, belonging, retention and success. The interventions reviewed include peer mentoring, buddying and peer tutoring and provide examples of good practice. Research continues in order to identify which interventions have most impact particularly when supporting students from lower socio-economic groups. Phase 2 of the 'What Works?' 2012 – 2015 review aims to build on Phase 1 by focusing on the implementation of a wide range of interventions and evaluating the impact in thirteen different higher education institutions. Whole institutional approaches are to be reviewed with a view to determining impact, specifically on retention and success at course and programme level. Student engagement, active learning and other co-curricular activities will be studied to determine impact of changes.

The review of higher education funding by Lord Browne (2010) made recommendations for changes to HE funding arrangements as well as student finance. The subsequent introduction of the new fee structure and student loan shifted responsibility from the taxpayer directly towards the student, making student choice and the student experience even more significant factors. This shift has the potential to affect the attitude of students, increasing expectations as they develop a stronger consumer attitude. Docherty (2011) suggests that students will focus on value for money in relation to issues such as contact hours with tutors. The NUS Connect survey 2010 found that 65% of students, surveyed reported that they would have even higher expectations of their experience at university as a result of the increase in fees. This is a likely cause of the growth and continued interest in peer support programmes.

Thomas (2012) also suggested that other possible consequences of the increased fees may result in more students continuing to live in the family home, combining part time study with employment or postponing entering higher education and joining later as mature students. It was shown in the 'What Works?' project that these factors make it more difficult for students to participate, integrate and feel as though they belong which has been seen to impact on student retention and success. In addition to this the widening participation agenda continues to encourage students from lower socio economic groups to apply to higher education institutions in greater numbers. It has been highlighted by many that these students are less likely to succeed (Yorke and Longden, 2008).

It is clear that Higher Education institutions are under continued pressure to improve their provision and remain or become a major competitor within the field. This is driven by financial constraints as well as increasing student fees which in turn demand a higher level of accountability in student satisfaction and attainment. The impact on student expectations and retention, as identified by Foskett, Roberts and Maringe (2006) has increased the need for higher education institutions to be more creative and diverse in providing support for their students and enabling them to succeed. This is a likely contributory cause of the increase of interventions such as peer support.

This study focuses specifically on the aspect of academic attainment of higher education students rather than success in more general terms. Whilst there is some

evidence to suggest that peer support interventions such as mentoring have impacted on academic attainment, there has been a lack of clarity on the specific nature of the intervention. There is also a lack of coaching literature, using robust methodology to measure the impact on the academic performance of higher education students.

Coaching is often described as 'goal focused' and concerned with maximizing performance (Whitmore, 2003) whilst mentoring is often thought to be more of a transfer of knowledge and instructional as described by Parsloe and Wray (2000). As this study is specifically aimed at how academic attainment is impacted through peer support, coaching with such a result-orientated focus would seem to be a very appropriate approach to adopt. Whilst there is an abundance of available literature on peer mentoring in higher education institutions, there is less available on coaching and in particular with undergraduate students.

Defining the distinctions between coaching and mentoring has been difficult. Bachkirova, Cox and Clutterbuck (2010) suggest that the aim for each of the interventions is similar and the terms have indeed been used interchangeably by some. Megginson, Clutterbuck, Garvey and Stokes (2006), in response to this dilemma, suggest a different strategy. They advocate a more flexible approach is adopted and suggest that the important element is to establish clarity about the relationship and its objectives between the two parties involved.

Whilst this debate continues and with no clear definitions in existence for the different stands of peer support, it does become important for researchers to clearly define the intervention under scrutiny. In this way a proper comparison can be made between the findings of the different studies.

There is a growing body of literature available that highlights the confusion between the terms used to describe the peer support and the precise nature of the intervention. Gray (1988) referred to this confusion being present from early as the 1970s. The confusion was emphasised later by Gibson (2005) and Chao (2009) who reproach others for not clarifying the precise definition of the peer support in their studies. Both Jacobi (1991) and D'Abate, Eddy and Tannenbaum (2003) report that the lack of clarity in the terms makes it difficult to compare and contrast the different interventions.

This ambiguity in definitions impacts on studies of coaching and mentoring in particular. Discussions as to what constitutes mentoring or coaching date back to 1990s when Jacobi (1991) in her review first reported the difficulty in determining whether these types of interventions were successful or not. A decade later, D'Abate, Eddy and Tannenbaum (2003) in their review of mentoring and coaching and in an attempt to determine some meaning and create a framework, mirrored these same concerns. Parsloe and Wray (2000) also recognised the confusion between the terms coaching and mentoring and hoped for clearer definitions to be apparent within a decade. It seems however that these definitions are still as yet to emerge. Stober and Grant (2006) and Ives (2008) discuss the different approaches and contexts in which coaching is used. Whilst advice giving is discouraged in some definitions, in others 'guidance' is stated as part of the process.

The range of terms for peer support varies from peer assisted learning (PAL) to supplemental instruction, peer mentoring and coaching and peer tutoring. The boundaries between these interventions are blurred at the very least and so too are the definitions. In some cases a clear definition is not even offered which makes comparing and contrasting the studies very difficult. The following are examples of definitions for peer support programmes.

Peer Assisted Learning may be defined as a scheme for learning support and enhancement that enables students to work co-operatively under the guidance of students from the year above. Most usually, second year students (PAL Leaders) facilitate weekly study support sessions for groups of first years (Capstick, Fleming and Hurne, 2004).

Supplemental Instruction (SI) is an academic support model developed by Deanna Martin at the University of Missouri-Kansas City (UMKC) in 1973 that uses peer-assisted study sessions to improve student retention and success within targeted historically difficult courses. It is described by Congos and Schoeps (1998) as a non-remedial retention programme that promotes collaborative learning and academically successful students to help peers refine their thinking and applied study skills to master course content.

Mentoring is described by Cropper (2000, p602) as being within a 'personal and community empowerment context where mentors act as a critical friend who can

assist with personal development while at the same time understanding the wider social issues operating in society and replicated in organisations’.

Topping (2005) defines mentoring as an encouraging and supportive one-to-one relationship with a more experienced worker (who is not a line manager) in a joint area of interest and characterised by positive role modelling, promotion of raised aspirations, positive reinforcement, open-ended counselling, and joint problem-solving.

Peer tutoring is characterised by Topping (2005, p632) by ‘specific role-taking as tutor or tutee, with a high focus on curriculum content and usually clear procedures for interaction’ for which training is given.

Coaching is described by Downey (2003, p21) as ‘the art of facilitating the performance, learning and development of another’. Parsloe (1999, p8) describes coaching as ‘a process that enables learning and development to occur and thus performance to improve’.

Knight (2007) discusses several forms of coaching from Executive Coaching which he defines as being aligned to the business world and Coactive Coaching that involves the whole of the person’s life. He also describes instructional and literacy/reading coaching where the coach is required to have knowledge of a large number of scientifically proven instructional practices. These two types might be interpreted as a more directive form of coaching as he suggests that coaches might teach teachers about reading strategies etc. Knight (2007) also describes cognitive coaching that is based upon reflection and on the belief that behaviour changes after beliefs change.

Gottesman (2009) describes peer coaching as a process where two colleagues can request observations and provide coaching to improve teaching in a safe, impersonal and non-judgemental environment. He suggests that many within the education context equate coaching with evaluation and supervision. In his model of coaching a coach is a peer of similar rank who assists a colleague in the improvement of teaching with observation, feedback and coaching and a peer. Foltos (2013) states that successful coaches realise that routinely taking on the role of an ‘expert with the answers’ is the wrong path toward collaboration and capacity building. Robbins (2015) describes the peer coaching process as one where two or more professional colleagues work together to reflect on current practices, share ideas, solve problems and teach one another.

The peer coaching definition used in the context of this thesis was the one adopted by the case study institution which was designed to be non-directive and comprised of older more experienced students as the coach. It is therefore more closely aligned to the Downey (2003) and Parsloe (1999) or Knight's (2007) cognitive coaching model definitions above.

Despite the confusion and plethora of different descriptions, there is evidence to strongly suggest that peer support interventions in general are useful in attaining objectives such as improved retention and student engagement. Ward, Thomas and Disch (2010) found for example that goals were more likely to be obtained by those being mentored and Griffin (1995), Hill and Reddy (2007) as well as Andrews and Clark (2011) all reported benefits such as improved student engagement and satisfaction. The methodology more commonly adopted to study the impact of these interventions however is usually inductive and relies heavily on anecdotal evidence from those being supported. Many of the studies also refer to increased student success although success is often defined by social integration or increased student involvement with the higher education institution rather than academic attainment. Merriam (1983) who carried out an early review of the literature on mentoring concluded that many of the studies were based upon testimonials and opinion alone. Later Capstick (2004) and Medd (2012) are still calling for studies of a more quantitatively robust nature to determine the impact of peer support within higher education. Bott (2008) later suggested that despite the paucity of robust research on the effectiveness of peer support, there is considerable qualitative and anecdotal evidence available.

Other studies that have attempted to determine more quantitative evidence of the impact of peer support initiatives have either been very specialised, limiting the transferability of the findings, or have not adopted sufficiently adequate methodology in order to validate the results. For example Fox and Stevenson (2005) conducted a quantitative study of accounting and finance students who were mentored compared to a control group of students who were not. Whilst the findings did report higher attainment of those being mentored, the intervention was described as pre-determined group sessions which some would argue is not 'mentoring'. Sanchez, Bauer and Paronto (2006) carried out a similar longitudinal study that reported improved satisfaction and the commitment of students to complete their studies compared to a non-mentored group. However the sample size was significantly

reduced by the end of the study resulting in missing data that compromised the external validity of the findings. Again the intervention was described as having a team leader working with small groups of students. Short and Baker (2010) also conducted a study to determine the impact of peer coaching, this time a one to one intervention. However the small sample size of eight participants impacted on reliability of the quantitative evidence. There is little or no research that defines exactly what constitutes good practice in peer support programmes despite it being stated as an essential ingredient for success (Husband and Jacobs, 2009).

Aims and Objectives

The aim of this study is to explore how peer support in the form of coaching impacts on the academic attainment of higher education undergraduate students. It has the following objectives:

1. To critically review literature on higher education peer support programmes including peer assisted learning, mentoring and coaching, especially in relation to student success and attainment.
2. To analyse students' perceptions of peer coaching, and actual academic performance prior to and after a coaching intervention.
3. To generate findings that contribute towards an understanding of the differences in the academic attainment of students who have been coached compared to those who have not.
4. To make a significant contribution in relation to peer coaching theory, on student success and attainment, higher education institution strategy and to professional knowledge regarding the practice and implementation of peer coaching support.

The research takes a case study approach conducted within one higher education institution which was selected due to the well-established and sizeable peer support programmes that have been delivered there for nearly 15 years. The study focuses entirely on undergraduate peer coaching using older and more experienced students as trained coaches to younger less experienced ones. The peer coaching intervention is well defined and the process of support fully described.

Originally a Polytechnic, the case study higher education institution is based in the South East region and was granted university status in 1992. In 2013 it enrolled over 25,000 students of which more than 5,200 were international students. The academic activities are organised into 11 Schools and within this there are more than 50 academic departments and 24 research centres. From this point the University will be named SE University.

Whilst a variety of peer support programmes are available at SE University, the mentoring provision offered at the institution mainly aims to support those students from widening participation backgrounds. As such, the main purpose for mentoring is for student retention rather than academic performance. The peer coaching programme that had more recently been developed was being utilised for the purpose of raising the academic performance of undergraduates. With the focus of the study being academic performance this made both the institution and in particular the peer coaching programme a good focus for the research.

Methodology

To explore impact on academic performance and provide a greater understanding of the coaching process which might achieve that, it was necessary to collect relevant quantitative data in the form of module grades. In addition to this qualitative data was collected via semi-structured interviews, focus groups and questionnaires. This qualitative data was analysed in conjunction with the quantitative data to determine perceptions of the coaching process and its effect on students' academic performance which are both reported. The qualitative data helped to illuminate the findings, making a mixed methods approach the most logical methodology to adopt.

The pragmatic paradigm supports research approaches that can be 'mixed fruitfully' (Hoshmand, 2003). Therefore a pragmatic paradigm was adopted as described by Johnson and Onwuegbuzie (2004) and Creswell and Plano Clark (2006). Johnson and Onwuegbuzie (2004, p16) state that 'research approaches should be mixed in ways that offer the best opportunity for answering important research questions' which was the case for this study.

Quantitative data had equal importance to the qualitative data collected, the overall design being QUAN + QUAL with the data being analysed concurrently (Morse,

2003). The quantitative data was stored and manipulated using an SPSS electronic database enabling statistical calculations to be made.

The coaches, too, who participated in the study, provided their perceptions of the coaching process through interviews, questionnaires and focus groups. This data is compared to that collected from the coachees.

A control group of students were also selected to take part. Students were invited to participate in the study in the control group through the managed learning environment at SE University. Additionally, students who had requested information about the peer coaching but elected not to apply were invited by email to take part in the study. The invitation to take part can be found in Appendix 1 and participant information for the control group can be found in Appendix 2. Similar secondary data on academic achievement was collected at the same intervals from these control group students for comparison with those who had received coaching. Care was taken when inviting the control group to avoid bias, contamination and pre-existing attributes as described by Mosley (1997).

Academic progress made by both the control group and the peer coached group was explored using the quantitative data collected and analysed with the qualitative data to produce the findings and compare their academic performance. Analysis of the qualitative data provided by coachees was conducted by identifying themes from the 'open questions' asked and used to describe the process and perceptions. Using a mixed methodological approach and the triangulation methods inherent in the case study approach helped to counteract any possible bias that being an insider researcher might bring.

The Development of the Peer Coaching Programme

At SE University there has been a variety of different mentoring and coaching programmes delivered, ranging from school pupil mentoring using undergraduates to disability peer mentoring for undergraduates. These programmes have been continually growing and developing since 2000 and have been funded by a variety of sources ranging from the Government's widening participation agenda to individual departments and academic Schools within SE University. Funds had also been

awarded to its mentoring department from external providers to meet specific agendas and stakeholder objectives.

Initially just one person was employed to deliver these programmes but as the mentoring and coaching provision and associated funding increased so too did the team that delivered it. At the time of the study, a team comprising of a Manager and five coordinators plus two administrators were employed to meet the demands of the mentoring and coaching provision. Each year approximately 350 new mentors and coaches were recruited and trained to work on the various programmes and around 1,500 beneficiaries received the mentoring or coaching support. The beneficiaries of these mentoring programmes ranged from widening participation pupils in local schools to undergraduates studying at SE University. Stringent recruitment processes and thorough training, specific to their allotted programme, was given to all participants. In addition to this all the trained coaches and mentors were monitored throughout their involvement and offered support either on a one to one or support workshop basis.

Thorough evaluations were conducted for each of the programmes to measure outcomes and to identify areas for improvement. The delivery staff at SE University often contributed to national conferences in order to share the good practices with other higher education institutions.

The peer coaching programme, that is the focus of this study, emerged from a student retention mentoring programme originally piloted in 2011/2012 at SE University. The original pilot retention mentoring programme was financed by the Law and Accounting and Finance department at the SE University, the aim being to prevent students who were failing from leaving the university prematurely. The success of this programme, evidenced by increased student satisfaction results, was further developed and by 2013 was being financially supported by seven of the eleven academic Schools and had grown considerably as can be seen from Figure 1.1. The usual evaluation of this programme obtained through student feedback questionnaires over the initial two years of delivery highlighted other perceived benefits. This indicated perceived improved academic attainment although the evidence for this was all anecdotal.

The pilot 'retention mentoring' programme was then developed into Peer Coaching, the aim of which was purely academically focused. This transpired due to the

changing needs of the academic Schools who were investing into it. Despite academic integrity support being available in the form of regular group sessions delivered by tutors and covering topics such as referencing and essay writing, these sessions were not generally well attended by the students. The hope was that the peer coaches would not only offer this type of support on a one to one basis but also signpost their coachees to the group sessions too, if further support was required.

Year	Participating Academic Schools	No of relationships
2011-2012 Pilot Mentoring	Law Accounting & Finance (a department of the Business School)	69
2012-2013 Retention Mentoring	Law Business School (including Accounting & Finance) Physics, Astronomy, Maths (PAM) Education Humanities Life & Medical Science	150
2013/14 Peer Coaching	Law Business School (including Accounting & Finance) Physics, Astronomy, Maths (PAM) Education Humanities Life & Medical Science Engineering	150

Figure 1.1 Evolution of the Coaching Programme at SE University

Another factor in the decision to offer the support as peer coaching as opposed to mentoring was due to the introduction of National Scholarship Programme (NSP) mentoring provision in 2012. This large scale programme is also delivered at SE University to students from lower socio-economic groups and aims to prevent the identified students from leaving prematurely, to help them integrate socially and to perform better academically. Every identified NSP student was offered the support of a peer mentor for the duration of their studies. However due to the large scale of the programme, which in 2013/14 supported approximately 900 students, it was not possible to offer each of these students a mentor who was studying a similar course or subject. It also became apparent from the evaluation of this programme that undergraduate students, when seeking academic support, have a strong desire to be supported by a more experienced student studying the same or very similar course.

As these initiatives are delivered concurrently, to differentiate between the support offered it was decided to offer the peer coaching support to students from the end of semester A through to semester B whilst the National Scholarship Programme (NSP) mentoring provision was offered at the beginning of semester A. Whilst the NSP

mentoring was made available for the whole academic year, the peer coaching was offered only for a period of 10-12 weeks. The peer coaching promotional materials also indicated that the support was academically focused and not designed to support with more pastoral or emotional issues unlike the NSP provision that caters for a broader range of issues. The undergraduate mentors and coaches were trained accordingly to meet these differing needs. Whilst mentors were prepared to offer support with social, housing and more personal issues, coaches were equipped with more academic resources such as revision timetables and planners.

Because of this more academically focused approach for the Peer Coaching, the coaches were selected not only on their personal qualities but on the basis of their achieving well academically. Peer coaches were required to demonstrate well developed communication skills, empathy as well as a good understanding of academic requirements. To be accepted as a coach onto the coaching programme the students were required to be achieving at least a 2:1. Offering the support in semester B, was when any academic issues were more likely to have emerged. The restriction to 10-12 weeks ensured that the one to one sessions, which were usually held once per week, were completed by the end of the academic year.

Another consideration in the change of title from mentoring to coaching was the history of mentoring provision at SE University. Traditionally mentoring had always been offered to students who faced barriers such as those from lower socio-economic groups or who had a disability. The peer coaching support was, in the main, obtained through self-referral generated through marketing and promotional activities. Occasionally a tutor who had identified a need for a particular under-performing student would refer them to the programme. It was available to all students from the seven participating academic schools including home and international students. Peer coaching was promoted solely as academic support and whilst it was aimed at students who were under-achieving, it was utilised by some as a means to improve grades (from a 2:2 to a first). In contrast, the NSP mentoring was offered automatically to all identified widening participation students whether or not they had requested support.

The peer coaching programme was delivered by the same coordinators at SE University who also deliver the suite of other coaching and mentoring programmes for undergraduates, school pupils and external organisations. The recruitment of coaches and mentors for all the programmes is carried out simultaneously but the training for each of the specific programmes delivered separately. This ensures that

the coaches or mentors receive training and are given tools specifically for the context of the support for which they have volunteered.

Andrews and Clarke (2011, p88) guidelines for a robust and well managed peer mentoring programmes include:

- ensure effective marketing of the programme
- introduce a rigorous mentor selection process
- begin recruitment as early as possible for the following academic year
- match mentees and mentors within 'subject / discipline' areas to ensure that both social and academic needs can be covered
- where necessary, match mentees and mentors taking into account demographic or other criterion as necessary (particularly relevant in targeted mentoring)
- institute high quality training for mentors
- engage with staff across the institution right from the onset – and continue doing so
- provide on-going support to peer mentors and mentees throughout the year
- introduce a level of flexibility into the programme so that, if necessary, mentees can 'swap' mentors should they wish to
- evaluate the programme at an appropriate point or points in the year
- listen to, and act upon, student feedback
- introduce formal 'recognition' of peer mentors efforts (a certificate of achievement / participation).

At SE University these guidelines are adhered to for all mentoring and coaching programmes delivered. The mentors and coaches volunteer and apply by application for the role and undergo a rigorous recruitment and selection procedure including an interview. If successful they are offered a place on the training programme that is deemed most suitable for their experience also taking into account their stated preference. Being offered a place on the two day training programme does not guarantee them a place on the peer coaching scheme. Their performance and participation is monitored by the tutors over the two days and they are also required to undertake a short assessment at the end of the training sessions to evaluate their understanding of the coaching process. Any students that do not meet the required set standard are eliminated and are not subsequently matched.

The training programme offered to coaches encourages the students to refrain from advice giving and instead teaches them to help facilitate self-efficacy and decision making in the coachees through goal and target setting. They are taught to ask 'effective' questions, give appropriate feedback as well as to utilise the coaching tools that are provided. Many of the coaches utilised on the programme however are only in their second or final year and therefore subsequently have little time to practice and hone their coaching skills with a real coachee.

Every student who applies for peer coaching support is required to attend an induction session where they are informed of the boundaries and their responsibilities in the relationship. They are also invited to select a coach of choice from available profiles. The coach profiles contain information on each coach as to their strengths and in which year and subject they are studying. Once matched the coaches are supported by a coordinator through the provision of fortnightly support workshops. Coaches are required to attend at least one support workshop each month as part of their commitment.

Whilst these volunteer coaches are not paid for their involvement, they are rewarded for their commitment in other ways. Following successful completion of the programme they are invited to use the mentoring and coaching team staff for reference purposes and in some cases, if funding allows, they are given a bursary payment or gift vouchers upon completion of the programme. In some cases there is also the opportunity of undergoing a further assessment process in order to receive certification from SE University.

Whilst I continued to lead on the other coaching and mentoring programmes being delivered at SE University during the study, for ethical reasons I refrained from taking an active role in the delivery of the peer coaching programme. It was agreed with the Ethics Committee that my facilitation of the peer coaching programme and consequential familiarisation with the student participants might impact on the data provided by the coaches and coachees. It was therefore agreed that I would have no involvement with the delivery of the peer coaching programme which also served to reduce the risk of researcher bias.

My Background

Having worked within higher education for 15 years to support students and develop and deliver programmes to promote the widening participation agenda, I found

mentoring and coaching to be one of the most successful methods of achieving these aims.

I initially developed small scale mentoring programmes using undergraduates as mentors to support school pupils. Through thorough evaluation these were deemed to be successful in raising aspirations towards higher education and in motivating the pupils to perform better academically.

Whilst these programmes grew and developed it became apparent that the same principles could be applied to support higher education students who were perceived as having barriers to success. These barriers included students who were from lower socio economic groups who have been shown to report higher levels of negative experiences when leaving their institution prematurely in their first year compared to those from higher socio economic groups (Jones, 2008). Thomas (2008) too refers to the higher levels of attrition in students from lower socio economic groups.

Within my role I also developed mentoring programmes to support other important higher education agendas such as 'student employability' that culminated in an alumni mentoring programme. This intervention supported final year students into employment with the support of a trained alumni mentor. Other programmes included a peer mentoring scheme for those with a physical or mental health disability. A need was identified by the counselling service who felt that a number of students who they were seeing might benefit more from the support of a peer rather than a professional.

Even prior to working in a higher education institution 'mentoring' had been a large part of my role. A mentoring approach had been used to support adults with disabilities in the workplace to supporting senior managers to comply with disability discrimination legislation and to implement 'reasonable adjustments' for their employees with disabilities.

Over the years I have become passionate about the use of mentoring and coaching in helping others to achieve their potential. In my experience from previous evaluation reports it has been demonstrated to be a powerful method of supporting others in such a way as to develop self-efficacy and confidence, enabling them to perform better. The growing body of research and evidence to support this continues to back these claims. It has also been shown to be of benefit to those offering the support in terms of developing leadership qualities, amongst other skills as well as satisfying those who have altruistic qualities.

What has also become apparent to me in carrying out this work is that adherence to best practice mentoring is vital in obtaining optimum results. Best practice can be described as the thorough screening of all mentors or coaches, a well-structured training programme, proper mentee or coachee inductions as well as a careful, well thought out matching process. It also entails the support of the mentors or coaches throughout the process. This became the basis for every programme under my leadership and institutional accreditation was received from the Mentoring and Befriending Foundation in 2012 at SE University to endorse this. This need for adherence to best practice had also been documented by others such as Husband and Jacobs (2009), Andrews and Clarke (2011) as well as Thomas (2012) who identified the need for a well-structured mentoring programme to be in place in order to meet its objectives.

This experience and strong belief however served as a challenge when conducting this study as an insider-researcher. It is of course imperative that a researcher remains unbiased and does not allow their beliefs to cloud data interpretation. When embarking on this study I was indeed initially an insider researcher, employed by the case study institution. To this end I recognised the difficulties of this role and was aware that it may be possible that I could unconsciously make wrong assumptions and was open to accusations of bias as highlighted by DeLyser (2001) and Hewitt-Taylor (2002).

However before the data collection was completed, I left my role at SE University and therefore concluded the research as an external researcher. In many ways this served to be advantageous as it enabled me to conduct the analysis in a more objective way as the findings would no longer have any bearing whatsoever on my position at SE University. Becoming an external researcher however did raise further complications with the provision of the student module grade data. There became a need for additional measures and precautions to be incorporated allowing for the data to be transferred to an external individual.

This situation did however initially allow all the advantages of being an insider researcher when collecting the data as identified by Bonner and Tolhurst (2002). I had a greater understanding of the culture and background of the coaching programmes delivered there, had a well-established rapport with the staff delivering the programme so did not alter the flow of the programme delivery unnaturally. Whilst leaving SE University was not part of my original plan when embarking on the

study, it did serve to offer the advantages of being both an insider and external researcher.

Not being part of the delivery team for the peer coaching project was an insufficient measure on its own to counteract the initial issue of being an insider researcher. Whilst this might serve to deter from influencing the views of the participants, a number of other measures were also required to safeguard the validity of the findings.

In collecting quantitative data in the form of module grades, as was the intention, there was little room for interpretation or indeed misinterpretation. Comparisons of the module grades were to be made with a group of students who were coached compared with a control group who did not receive coaching, although were offered the opportunity.

However as the study was also to explore a greater understanding of the coaching process required that might achieve greater academic attainment, qualitative data in the form of interviews, focus groups and questionnaires were also conducted. This is where the bias that I might have brought to the analysis may have occurred. As Weber (2004) suggests, I both acknowledged and utilised a number of approaches to address the implications of my subjectivity. Colleagues who were educated to post graduate level and experienced researchers were used to analyse the qualitative data as a form of investigator triangulation. The themes that were drawn independently, concurred and are presented in Chapter 5. This process served to validate the findings presented.

However as a continuing practitioner of coaching and mentoring programmes in higher education it should be recognised that even conducting the analysis as an external researcher would not completely eliminate bias. This bias might have been present in the fellow researchers who also work within the field of coaching and mentoring.

Introduction to Chapters

Chapter 2 of the thesis explores the literature on peer support in higher education in some detail. It will show that there is a wide spread literature available on the topic of peer support, much of it acknowledging the benefits, suggesting guidelines for delivery and the different ways in which it can be utilised. Husband and Jacobs (2009) and Andrews and Clarke (2011) for example conclude that whilst peer support

and mentoring are beneficial, a robust process for delivery is essential for success. It will be seen that there is, albeit in the minority, some literature that warns against the dangers of ill practice mentoring such as aggression from the mentor (McClelland, 2011; Long, 1997). They suggest that it may be detrimental to both the mentor and the mentee. Whilst this study focuses on peer coaching, the findings from peer mentoring studies in particular, being a similar intervention, are likely to be informative.

In reviewing the literature it was necessary, despite this confusion in the terms, to split it into different categories under the main heading of 'peer support'. The selected themes are peer assisted learning/study, peer tutoring (incorporating peer assessment), peer mentoring and peer coaching. Due to the plethora of literature on the subject I restricted the search mainly to peer support within a higher education context. Peer support interventions are more commonly associated to an educational context than others.

In the review of the literature, each aspect of peer support is explored as is the description of the process. It is shown how the boundaries of the different interventions are unclear or overlap in many cases. What is described as peer mentoring in one study comprises of pre-prepared sessions delivered by a couple of older, more experienced students to a small group of younger, less experienced students such as was seen in the work of Fox and Stevenson (2005). In other studies this type of intervention is described as peer assisted learning or PAL such as Boud (1999), Green (2011) and Capstick (2003).

The literature review also highlights a lack of literature on peer coaching within a higher education context demonstrating the need for a study of this type.

Chapter 3 describes the methodology adopted to conduct the study showing how the mixed methods, pragmatic approach suited the research question. It explores how other methods were considered and eliminated as being less suitable approaches. The chapter also describes in more detail the methods used to collect data and what measures were used to triangulate and validate the findings.

Chapter 4 presents three individual case stories that demonstrate the peer coaching process taking place and the impact upon the students. It details and highlights the communication between the coach and the coachee through email correspondence and contact logs that are submitted by the coaches.

Chapter 5 presents the qualitative findings in the form of student perceptions of the impact of coaching collected from focus groups, interviews and questionnaires. Pre and post-coaching perceptions are also explored and compared to demonstrate any perceived impact or movement.

In addition to this the data collected from the coaches and their perceptions of the coaching process are presented and compared to data collected from the coachees.

Chapter 6 explores and presents the quantitative data in the form of module grades collected from both the coached and non-coached control group including a measure of academic behaviour confidence (Sander and Sanders 2009). Tables showing the differences in academic attainment between the control group and the coached group are presented, demonstrating where the most impact is seen. The data from different groups of students are analysed and compared such as those studying different courses, gender and from differing year groups to demonstrate where coaching appears to be most effective. The results and the possible interpretations of the statistical findings are also discussed

Chapter 7 explores and compares the qualitative and quantitative data collected from the mixed methods study. It presents the synergies and discusses the differences and disparity between them as well as the implications for the case study institution.

Chapter 8 summarises the main findings, drawing conclusions, pointing out the limitations of the study as well as suggesting areas worthwhile of further research. It also highlights the implications for practice at other higher education institutions and beyond.

CHAPTER 2

Literature Review

There are said to be a number of factors that impact on the academic achievement of higher education students. Kyllonen (2012) suggests that non-cognitive skills are as important for academic success as academic readiness. Poropat (2009) found that conscientiousness (the trait indicating the degree to which one works hard, persists, and is organised) had the highest correlate with grades. A meta-analysis conducted by Richardson, Abraham, and Bond (2012) identified 89 distinct correlates out of which 41 were significantly correlated with grades. Prior academic measures were found to have a medium correlate with grades whilst demographic factors showed a small correlation. The strongest predictor was performance self-efficacy and academic self-efficacy. These findings were consistent with the meta-analysis conducted by Robbins, Lauver, Davis, Langley and Carlstrom (2004) who also found that retention was best predicted by academic goals, academic self-efficacy and academic-related skills. Students Grade Point Average (GPA) was best predicted by academic self-efficacy and achievement motivation. It was found that these relationships held true even after controlling for socioeconomic status, achievement test scores, and high school GPA.

Other factors such as ethnic and socioeconomic group are also frequently reported as being significant factors in student achievement (Connor, Tyres, Modood and Hillage, 2004; Crawford, 2014). McKenzie and Schweitzer (2001) suggest that integration into university, self-efficacy, and employment responsibilities were also predictive of university grades.

Student engagement with their institution also has long been reported to be linked to success and a robust body of literature is available to support the link between educationally purposeful activities and positive outcomes such as student satisfaction, persistence, academic achievement and social engagement (Astin, 1984; Berger and Milem, 1999; Chickering and Gamson, 1987; Goodsell, Maher and Tinto, 1992; Kuh, 1995; Kuh, Kinzie, Schuh and White, 2005; Pace, 1995; Pascarella and Terenzini, 2005).

Nicol (2009) suggests that academic engagement is likely to be enhanced when students have some understanding of what they are trying to achieve, actively

engage in relevant learning activities in and out of class, receive regular and constructive feedback on their performance and have opportunities to use this feedback to make performance improvements in their work,

Peer support in particular has been commonly used in higher education to enhance the success of students and there is an abundance of literature available on the topic. Colvin (2007) and Andrews and Clarke (2011) report on the successes of peer support such as mentoring and peer tutoring whilst Condell, Giles, Zacharopoulou and O'Neill (2011) report specifically on Peer Assisted Learning (PAL). To explore the findings of previous studies and attempt to identify gaps in the knowledge as well as gain a greater understanding of peer support, the literature has been reviewed using some of the more commonly used terms. The key words used in the initial searches as well as peer support included higher education students, support, mentoring, coaching in higher education as well as peer tutoring, peer support, peer assisted learning and peer assessment. In addition to this a search was conducted on supplemental instruction, another term frequently used to describe peer support in a higher education context, as well as peer assisted study.

As peer support within a higher education context takes many forms, such as mentoring, peer assisted learning, peer tutoring and coaching, each has been explored separately in this review. Peer assessment is also reviewed and included under the heading, Peer Tutoring. Identifying gaps in knowledge and the most effective methods adopted so far to determine success of such programmes will guide this research project to both augment and build on what is already known. Such knowledge might enable improvements to be made to student support systems specifically in the approaches used to improve academic attainment.

The main body of the literature on peer support focuses on peer mentoring which is increasingly being used within higher education institutions. This aspect has therefore been concentrated on in most detail. The search however has been narrowed down to review the formal mentoring programmes rather than impromptu or natural mentoring relationships which are not as easily defined or quantifiable. The literature on peer tutoring within a higher education context has also been investigated as well as peer assisted learning and/or study and coaching. These interventions used within a higher education context more commonly consist of more advanced peers supporting others who are new to the environment or those less

able with the aim of developing their study skills although it will be seen that there are many different formats in existence. The diagram in figure 2:1 shows the four different strands of peer support that were explored within the review of the literature.

The latter part of the chapter summarises the findings of the literature review highlighting the main issues as well as identifying the gaps.

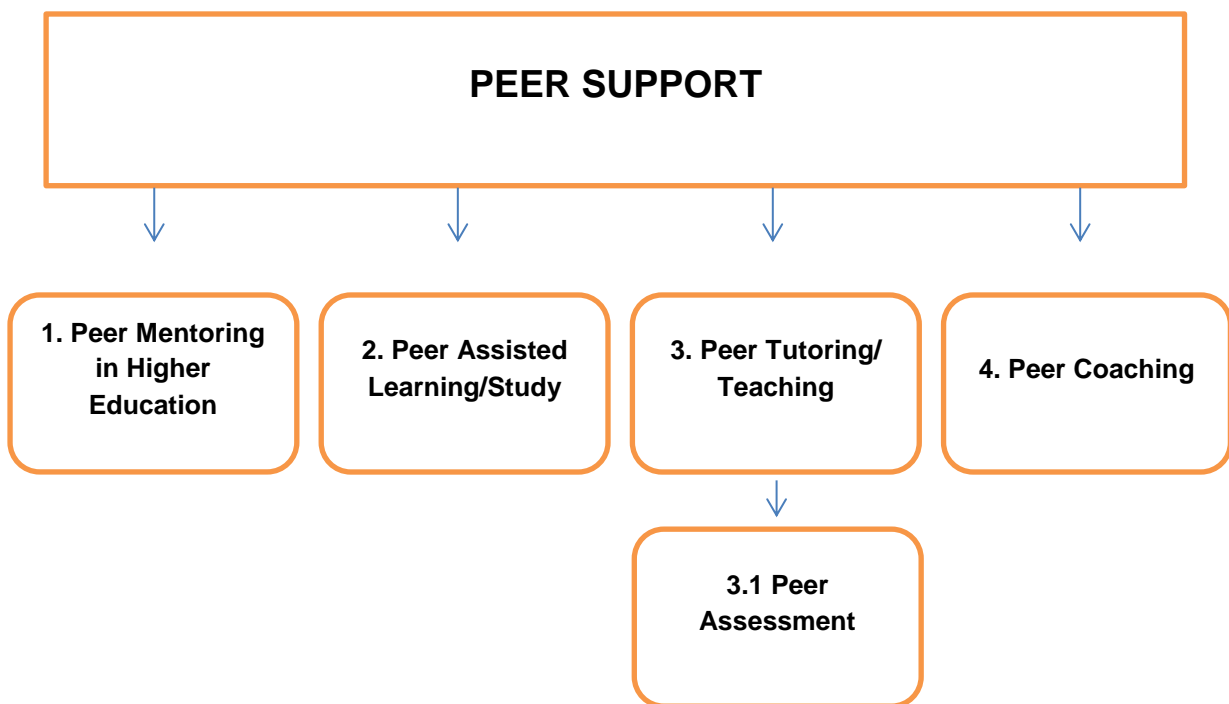


Figure 2.1 The different strands of peer support reviewed

The continued pressures in the current financial climate for Higher Education Institutions and other factors such as the introduction of the National Student Survey launched in 2005 means that many higher education institutions are looking to implement cost effective programmes to promote success for their students. The introduction of the new fee structure was also likely to impact on student expectations and retention as identified by Foskett, Roberts and Maringe (2006). It is thought that as fees rise students are more likely to develop a stronger consumer outlook with higher expectations of their chosen institution with regards to 'value for money' as described by Docherty (2011). Thomas (2012) also highlighted other possible factors such as more students remaining to live in their family home, the

need to combine part-time study with employment and the possible increase in numbers of mature students.

It appears from the literature that peer support has, for several years, been beneficial in a number of ways as a means of meeting needs such as improving student satisfaction, integration and aiding retention. Astin (1984) and Tinto (1993) reported that student involvement within their institution could be a predictor of academic success and reduce attrition rates. Goodlad (1998, p16) too suggested that 'involving learners in responsibility for their own, and more importantly, for other people's education increases social interaction and transforms learning from a private to a social activity'. It is worth noting however that in Tinto and Pusser's (2006, p1) later paper 'academic success' was defined as the completion of a student's degree rather than a more explicit concept such as the level or grade of the degree obtained.

The strength of peer influence has also been thought to have several benefits on the outcomes of student learning, attitudes, and behaviours. Astin (1993) reports that peers play a significant role in an undergraduate's growth and development during college. This was also later indicated by Pascarella and Terenzini (2005).

There is plentiful literature available on the topic of peer support in various forms within a Higher Education context and some example definitions can be seen in Table 2.2.

HIGHER EDUCATION PEER SUPPORT	DEFINITIONS
PEER MENTORING	<p>Peer mentoring focuses on a more experienced student helping a less experienced student improve overall academic performance, encourages mentors' personal growth (Falchikov, 2001)</p> <p>Topping (2005, p321) suggests that peer mentoring is typically conducted between people of equal status.</p> <p>Kennedy (1980) suggests that peer mentoring involves a 'delayed' reciprocal relationship whereby the peer mentor shares interests and knowledge with the mentee on the understanding that it will be reciprocated at a later time.</p> <p>Kram and Isabella (1985) identify three types of peer relationships:</p> <ul style="list-style-type: none"> - Information Peers, for information sharing. - Collegial Peers, for career support. - Special Peers, for confirmation, emotional support, personal feedback and friendship. <p>Within higher education, peer mentoring relationships are built upon equality in terms of 'power' (Cropper, 2000).</p>
PEER ASSISTED LEARNING (PAL) PEER ASSISTED STUDY SUPPORT (PASS)	<p>PASS/PAL Leaders (usually senior students) are trained to support and facilitate study sessions for junior years (Scott, 2012)</p> <p>Peer assisted study sessions usually take place weekly and are led by the course content being followed and by the needs of the students (Falchikov, 2001)</p> <p>The development of knowledge and skill through active help and support among status equals or matched companions (Topping, 1996)</p> <p>PAL - Active discussion and cooperative learning within the framework of a partnership with the formal structures of the course (Capstick, 2004, p1)</p> <p>Working alone or in pairs to regularly supervise the learning of a small group of younger or less able students (Boud, 1999).</p>
PEER TUTORING	<p>People from similar social groupings who are not professional teachers helping each other to learn and learning themselves by teaching, characterized by specific role taking ie tutor and tutee (Topping, 1996)</p> <p>The acquisition of knowledge and skill through active helping and supporting among status equals or matched companions (Topping, 2005, p631).</p> <p>Colvin and Ashman (2010) suggest that peer tutoring is same as Supplemental Instruction whereby more advanced students help less experienced students with course content.</p> <p>For peer tutoring to occur there needs to be a difference in the knowledge of the two individuals so that the more knowledgeable individual can act as a tutor to the less knowledgeable (Forman and Cazden, 1985)</p>
PEER COACHING	<p>Peer coaching is a confidential process through which two or more professional colleagues work together to reflect on current practices; expand, refine, and build new skills; share ideas; teach one another; conduct classroom research; or solve problems in the workplace (Robbins, 2001)</p> <p>Gottesman (2009) describes peer coaching as a process where two colleagues can request observations and provide coaching to improve teaching in a safe, impersonal and non-judgemental environment.</p>
PEER ASSESSMENT	<p>Members of a class grade the work of their peers using relevant criteria which may involve giving feedback (Falchikov, 2001)</p> <p>This generally takes the form of one student assessing the work by another student using pre-set criteria (Boud, Cohen and Sampson, 2001)</p>

Table 2.2 showing example definitions of peer support

Some of the definitions are old but still regularly cited by researchers. In addition it can be seen also that some of the descriptions are contradictory.

A significant number of studies on peer support aim to determine the impact such as Griffin (1995), Hill and Reddy (2007) and Andrews and Clark (2011). The aims and objectives for peer support programmes range from reducing attrition through enhancing the student experience to raising academic achievement as can be found by Loviseck and Cloutier (2001) and Fox and Stevenson (2005). The quality of the literature is variable including studies where the aims and objectives for the peer support offered are unclear or the precise nature of the support remains undefined or even inaccurate. For example mentoring, which is often perceived as a one to one relationship, is described by Leidenfrost, Strassnig, Schabmann and Spiel (2011) and Fox and Stevenson (2005) as pre-prepared group work sessions. There also appears to be much misperception and differing opinion about the various types of support offered making it difficult to compare and link the findings. The terms used to describe the peer support include guidance, tutoring, peer assisted learning, mentoring, coaching and even sponsorship.

Garvey, Stokes and Megginson (2009, p57) discuss sponsorship and developmental coaching which are suggested to be based upon an American perspective. This is defined as 'relationship-facilitated, on-the-job learning with the basic goal of promoting an individual's ability to do the work associated with that individual's current or future work roles'. This can encompass career direction and work-life balance. This type of coaching is more usually associated within an organisational context rather than educational. Clutterbuck (2007) suggests that this model is unlikely to work in most Northern European countries where employees encourage more personal responsibility for career management. As such this type of coaching has been excluded from the literature review.

Whitman (1988) described five different types of peer teaching. This included undergraduate teaching assistants, tutors, counsellors, which comprise of different levels of students, and also peer partnerships and work groups, which comprise of students who are at the same level. He recommended further research as much of the evidence at that time was anecdotal and based upon impression. As will be seen from this literature review, little progress has since been made in collecting evidence of a more robust and quantitative nature.

1. Peer Mentoring in Higher Education

The most significant and widely reported findings within the literature are concerned with 'mentoring' and/or peer mentoring such as Colvin (2007), Boyle, Kwon, Ross and Simpson (2010) and Andrews and Clarke (2011). The adopted methods utilised by many of these authors to collect the data varies. They range from small scale, subject specific programmes to larger scale research collecting large volumes of quantitative data.

There is also some literature on what is sometimes termed 'natural' mentoring. For example the work of Erkut and Mokros (1984) reported results of a survey completed by 723 students at six different colleges. This study directly assessed the relationship between natural mentoring and academic success among undergraduates. However all respondents identified a professor who had an impact on them rather than a peer and differences in student outcomes were associated with the gender of the student in relation to the mentor. Although academic success of the students was the focus of this study and the methodology used appeared to be thorough, the precise nature of the mentoring was undetermined rendering it less relevant for the purpose of this review. This type of mentoring was also described by Moses (1989) who defined the process as one where a professor takes an undergraduate or graduate under his or her wing, helping the student set goals and develop skills.

There is also literature that defines two types of mentoring as formal and informal. The previous two examples can best be described as informal whereby the relationship occurs naturally rather than the formal type that will be more fully explored in this review.

When purposefully implementing a mentoring programme within a higher education institution, it will inevitably become a formal type of mentoring. Mee-Lee (2003) as well as Kram (1985) and Klauss (1981) however inferred that formal mentoring relations may not be as beneficial due to personality conflicts, time constraints or a lack of commitment from either the mentor or mentee; the explanation being that the relationship did not evolve spontaneously. However institutional mentoring, when implemented formally, as has been seen earlier, should ensure that the mentors are recruited, trained and supported accordingly. This in turn will ensure continued commitment as suggested by Husband and Jacobs (2009). The mentees also should be offered an induction whereby they would be fully informed of the boundaries of

the programme offering, where possible, a choice in the allocated mentor ensuring that they too would be committed to the programme. For this reason and for the purpose of this review, only formal mentoring programmes will be explored.

It has been demonstrated by Andrews and Clarke (2011) that social integration issues are of most concern to the students when entering higher education. According to this report, 70% of students are confident that they have the academic ability to succeed when they join a Higher Education institution. However academic issues tend to emerge later on in their studies. These findings have concurred with my own experiences when implementing and evaluating a pilot peer mentoring project within my own institution. This is why the peer coaching at SE University is offered not at the beginning of semester A but later in the academic year when first year students in particular may have started to encounter some academic difficulties.

Empirical research such as Griffin, (1995); Glaser, Hall and Halperin, (2006); Hill and Reddy, (2007) who all carried out studies on peer mentoring is more relevant to this study. The experiences of first year University students who used these schemes reported higher levels of success in making the transition to University, were more likely to identify with the University community and found the programme helpful in a number of aspects of adjustment to university life. However the term 'success' is open to interpretation as can be seen by Tinto (1993) and Astin (1984) who describe it more in terms of completion of a degree and institutional involvement and Goodlad (1998) who appears to focus more on the reinforcement of subject knowledge. Other more subjective interpretations might include levels of student satisfaction, confidence and social integration or academic attainment.

Mentoring of higher education students who face particular barriers has also been demonstrated to be effective in supporting them to continue with their studies. Andrews and Clarke (2011) conducted a three year study that evaluated peer mentoring schemes in six higher education institutions. The study revealed that the peer mentoring works by addressing fears about settling in and making friends and making the student feel as though they belong. They concluded that a robust and well managed programme is required with dedicated staff to administer it. This was also determined by Andrews and Clarke (2011) who stated the necessity for any mentoring programme to adhere to the best practice guidelines stated in Chapter 1.

In 2009 the University of Plymouth also carried out a review of Peer Mentoring programmes in higher education. Reported by Husband and Jacobs (2009), this

study resulted in some guidelines for success such as adequate monitoring and management. This includes the thorough screening and selection of mentors, careful matching of mentors and mentees, thorough training (and on-going training) and support for mentors, clear expectations of mentors and mentees, clear communications and set objectives by the organisers.

Authors such as Mee-Lee and Bush (2003), Beven and Sambell (2006) and Hill and Reddy (2007) discuss the benefits of mentoring. However in these and many other evaluations reviewed, it is not clarified whether these guidelines had been adhered to as it is undeclared. It is quite clear however from the literature that a higher education peer mentoring scheme delivered according to good practice will inevitably result in beneficial results of some description.

Merriam (1983) carried out an early review of the literature on mentoring, including schemes within an educational setting, concluding that many of them were based on testimonials and opinion. She suggested that data was rarely collected from more than 50% of the sample leaving some doubt in the judgement of success. Jacobi (1991, p526) too commented in her review that success is 'assumed rather than demonstrated'. Even later Ehrich, Hansford and Tennent (2004) agreed with this synopsis adding that some programmes were poorly planned and inadequately resourced. It will be seen in Chapter 3 however that collection of data particularly from control group participants can be challenging. As early as the 1980's Gray (1988, p9) had stated 'Since the mid-1970s there has been much confusion about what mentoring is – even to the point of confusing it with on-the-job coaching'.

Many other authors have since identified the need for a precise definition of the peer support in order to determine the necessary elements for success. Jacobi (1991) stated that there is such a diverse range of definitions and models of mentoring that it does make it difficult to determine its success in quantifiable terms. She also highlighted methodological weaknesses in the reviewed studies. Kulik, Kulik and Shwalb (1983) drew a similar conclusion from their meta-analysis of 500 programmes stating that only 12% were of acceptable methodological quality. Woodd (1997, p336) later also suggested that 'what is being measured or offered as an ingredient in success is not clearly conceptualised'. Rodger and Tremblay (2003) too recognised that although descriptions of mentoring programmes designed to promote academic success were common, substantially fewer evaluations were available.

D'Abate, Eddy and Tannenbaum (2003) conducted a literature based approach to understanding mentoring, coaching and other developmental interactions in order to clarify the meaning of mentoring and create a framework. These concerns are still being reported and discussed by authors such as Gibson (2005) and Chao (2009) who critique others for not defining what is meant by the term 'mentoring' and suggest the need for further study of a qualitative nature to determine the essential elements compared with other developmental relationships.

The majority of these authors do appear to acknowledge the benefits of mentoring or the peer support provided but advocate the need for more clarity in defining the process or in evidencing the impact.

Other authors have focused on the required qualities for the mentor or the styles adopted for success. Leidenfrost *et al.* (2011) for example conducted a study to explore peer mentoring styles. Three distinct styles for mentoring were identified as motivating master, informatory standard and negative minimalist. Although the motivating master style was found to be most beneficial and the intervention was termed 'mentoring', it consisted of group work with each mentor supporting 8-10 students. Ward, Thomas and Disch (2010) reported that amongst other factors 'goals for growth' such as obtaining a 'B' were better obtained by those taking part in their peer mentoring programme. Terrion and Leonard (2007) also identified, in their taxonomy, the required characteristics for students who act as peer mentors.

Another study that focused specifically on academic attainment for Accounting & Finance students as a result of peer mentoring was conducted by Fox and Stevenson (2005). Both qualitative and quantitative methods were used and analysis of pre and post-mentoring examination marks compared alongside a control group of non-mentored students. However although the methodology appears to be robust, the mentoring referred to is also described as group work and comprised of predetermined weekly topics. In addition to this the size of the groups of mentored and non-mentored is relatively small; 26 and 35 respectively. As will be discussed later in this literature review, this type of prearranged group work may not be considered by some to be a true classification of the term mentoring and might be more closely aligned to Peer Assisted Learning.

In Ashwin's (2003) study, he too found that attendance at Peer Support sessions was significantly correlated to academic performance but again the support described consisted of group work. These last examples demonstrate clearly the

point made earlier regarding the ill-defined and broad concept of mentoring first identified by Jacobi (1991) and later by Woodd (1997).

A further study which appeared to adopt the recommendations of previous authors such as Jacobi (1991) and Woodd (1997) in an attempt to conduct a more robust study was that of Rodger and Tremblay (2003). Out of a sample of 983 first year students a total of 537 were assigned to a mentor. Two control groups were used, one consisting of students who had applied for mentoring but had not been allocated one and another where students had been selected at random (a non-applicant control group). This study showed in quantitative terms that the peer mentored group had significantly higher final grades than those in the control group but only when participation levels in the mentored group were taken into account. Contrary to the indications from other studies, the study showed no difference in retention rates. Their findings also demonstrated that differences in achievement scores could be found between those with high self-reported levels of anxiety compared with those who were not mentored which could be an indication that the peer mentoring reduced levels of anxiety. Attendance at the peer mentoring sessions was found to be a factor in raised academic success – i.e. the more sessions attended, the greater the positive effect. This is an aspect that was also suggested by Tinto (1993) who reported that supportive relationships in university are one of the most important ways of reducing stress. However as with the previous example studies, the peer mentoring was defined loosely as the mentors passing on what they had learned from other mentors and a Team Leader following regular meetings ensuring that all attendees were receiving the same information and resources. Each mentor was assigned a small group of 5-7 mentees. Again this description of the intervention for some does not adhere to what might be referred to as a true mentoring relationship.

Another longitudinal, mixed methods study of Peer Mentoring which adopted the more traditional one to one relationship was carried out by Sanchez, Bauer and Paronto (2006). Interestingly this study, although demonstrating strong quantitative evidence of improved satisfaction and commitment to finish their studies over a four year period compared with a non-mentored group, did not demonstrate any improvement in academic performance. However the initial sample size of 128 students, which was further reduced to 73 by the end of the study due to incomplete or missing data, would impact on the confidence that can be held in the findings. It is worth noting however that no lowered positive outcomes were reported at all by the

mentored group which would indicate that there would be little risk in implementing such a programme apart from a possible waste of resources.

The main themes from these mentoring studies points to benefits in improved student engagement and success but the lack of clarity of the mentoring process and the term 'success' is apparent. The methodology used has not always been robust and use of control groups for comparison has been limited. Collectively however these studies on peer mentoring are useful in the design and implementation of further research and the lessons learned from them can be utilised to formulate even more robust findings. It can be seen that a sufficiently large number of participants is essential when considering quantitative analysis for both the control and experimental groups. This allows not only for attrition but also for the confidence that can be held in the findings. In addition it is worthwhile to clarify the nature of the peer support being studied to avoid confusion and misinterpretation.

2. Peer Assisted Learning/Study

As suggested above, there is a multiplicity of terms to describe the process of 'student to student' support adopted by the British education system since the early 1990s. Green (2011) reviewed the literature and concluded that the peer assisted approach to learning is continually changing and still evolving. The term 'peer assisted' is more usually described as using trained second or third year students ('PAL Leaders'), working alone or in pairs, to regularly supervise the learning of a small group of younger or less able students (Boud, Cohen and Sampson, 2001; Capstick and Fleming, 2002; Green, 2011). Peer assisted learning is reported to offer an environment in which the younger, less experienced students can benefit in a number of ways. These benefits are said to range from quickly adjusting to university life and improving their study habits, to acquiring a clear view of course direction and expectations and enhancing their understanding of specific course or subject matter through group discussion (Capstick & Fleming, 2001; Capstick, Fleming & Hurne, 2004).

A significant amount of literature testifies as to the benefits of this intervention and to the pedagogical advantages such as improved performance and in the retention of students. Tinto (2006, p3) for example suggests that 'students who are actively involved in learning, that is who spend more time on task especially with others, are more likely to learn, and in turn, more likely to stay'.

Black and MacKenzie (2008) describe two strands of peer assisted learning as horizontal and vertical. Horizontal is described as being students from the same year group who support each other and vertical as being when students from a higher year support those from a younger year. Similarly Whitman (1988) describes and advocates the two different peer teaching models as co-peers and near-peers.

Some research suggests that peer assisted learning is also of benefit in raising grades for first year students. Ashwin (2003) as well as Coe, McDougall and McKeown (1999), Bidgood (2010) and McCarthy and McMahon (1995) all report improvements in academic attainment for those attending the offered peer support sessions. However the methodology used to obtain these findings was questioned as perhaps being somewhat unreliable by Capstick, Fleming and Hurne (2004). They suggested that the data relied on the comparison of grades of those attending peer support sessions to those who did not and did not take into account the self-selecting aspect of the interventions. The self-selection to a peer support intervention such as this does impede the findings when compared to a control group of either non-attenders or those who simply do not apply. It will be seen in Chapter 3 that the alternative methods for control group selection is limited. Loviscek and Cloutier (2001) designed a more rigorous, longitudinal study which suggests that the intervention of peer assisted learning does impact on academic attainment in at least some subject specific areas.

Another example of the success of peer assisted learning can be found in the work conducted by Miller, Oldfield and Bulmer (2004) at the University of Queensland. They successfully implemented the Peer Assisted Study Scheme (PASS) to assist those in their first year which was evaluated initially by Watson (1995). The success of this programme in improving grades has now led to it being extended to a total of 15 courses across five schools.

The Andrews and Clark (2011) study of what works with regards to student success in higher education refers to Personal and Academic Support System (PASS) although in this instance the intervention is described as regular meetings between an academic member of staff and tutees (groups of students). Evaluation however, although demonstrating improved student satisfaction, does not report on improved academic performance.

Interestingly the foundations of peer assisted learning might have been derived from Vygotsky's Social Development Theory. This has been affirmed by others such as

Smith and Blades (2003) but disputed by Sim (2003) whose findings suggested that peers are perceived by students as the least useful partners in learning when compared to tutors and lecturers. This view also seems to be adopted by Bidgood, Jones, Hammond and Bithell (2010) who conducted a three year study of a peer assisted learning programme. In this study the students reported improved social aspects of university life and satisfaction but little improvement with study skills or assignment preparation. However this programme adopted what was previously referred to by Black and MacKenzie (2008) as the 'horizontal' strand of peer support. It may be that for peer assisted learning to be effective in raising academic attainment the 'vertical strand' of the intervention needs to be adopted.

Support from peers is seen by many to be well received as students are able to admit ignorance and misconceptions, and seek information, advice and remediation, without fear of jeopardising their academic outcome (Bulmer and Miller, 2003). An important consideration is that students' knowledge constructs are mediated by interactions with more competent peers who are at a level of understanding just beyond that of the students themselves, so that learning can occur within a student's 'zone of proximal development' as suggested by Vygotsky.

Condell, Giles, Zacharopoulou and O'Neill (2011) carried out a case study of a Peer Assisted Learning (PAL) intervention that demonstrated benefits for both those being supported as well as those delivering the support and who were referred to as mentors. It was reported to have enhanced the personal development of the leaders leading to improved employability, encouraging them to apply for further study (e.g. PhD). Grades of attendees on the peer assisted Maths sessions were compared to those who had not attended and significant improvements were found for those who had engaged in more sessions. Belief in the effectiveness of the project has resulted in it being extended to two other academic Schools.

A similar case study was conducted by Smith, May and Burke (2007) for a relatively small number of Surveying undergraduates, numbering 35, with more emphasis given to the benefits for the 'mentors' which had been identified as a gap in the knowledge. Quantitative data was not collected and the authors differentiate between the outcomes for mentors who took part for personal gain and those who took part for other reasons. However as with Condell *et al.* (2011) study, perhaps a more robust methodological or a mixed methods approach would have resulted in more valuable findings.

As with the literature on mentoring, these studies indicate the benefits of such an intervention. Capstick (2004), however, suggests that a strong methodological approach is required to evaluate the efficacy of such schemes using a genuine control group as opposed to a group of non-attenders. As will be seen in Chapter 3, control group selection in particular for peer support interventions is problematic. This is due to self-selection of the participants to the intervention as well as the difficulty in using a trusted method such as randomised selection. There does however seem to be more clarity and agreement than with peer mentoring on the definition of the process of Peer Assisted Learning. Similar lessons can be learned from this literature which could inform the methodological approach of this study as well as clarify the nature of the intervention.

3. Peer Tutoring/Teaching

Topping (1996) describes peer tutoring as an old practice whereby able students work in pairs or in groups with less able students. This could be interpreted as the horizontal strand of Black and MacKenzie's (2008) peer support as termed earlier or Whitman's (1988) co-peers. Peer tutoring is also seen to have a high curriculum content and utilises structured materials. Topping goes on to describe nine different types of peer tutoring to suit different circumstances from cross-year tutoring to reciprocal peer tutoring.

Colvin and Ashman (2010) describe peer tutoring being the same as 'supplemental instruction' whereby more advanced students help less experienced students with course content. They describe 'peer mentoring' as a more experienced student helping a less experienced one to improve overall performance and personal growth.

Saunders (1992) draws attention to the confusion in the terminology found in the literature. He points out that the term 'peer' generally means 'of equal status' although within the higher education sector peer tutoring programmes, the use of more able students to support less able ones is more frequently adopted. Saunders (1992) also goes on to suggest that more information is required on the advancement of those being peer tutored compared to those who have not. Later, authors such as Cook-Sather, Bovill and Felten (2014) report a number of benefits from such interventions to improve learning.

Colvin (2007) earlier described the process of peer tutoring in a wider context from counselling to advising and training where previous experience lends itself to helping others and finally to being an expert instructor in a tutoring situation. She highlights the fact that the process does not always go smoothly and again suggests the need for further study on the impact of such an intervention. However, although the training programme for the tutors was described in some detail, it is not clear whether the process adopted adhered to what might be described as best practice. In addition to this Colvin, herself, admitted to being perceived as an authority figure which will likely have impacted on the interviews conducted with the participants.

The literature is abundant with claims of the benefits for both parties and in particular for the tutors. Whitman (1988) and later Hartman (1990) and Goodlad (1998) remark upon increased motivation for learning and the reinforcement of subject knowledge. Goodlad (1998) suggests some rules or criteria for designing and implementing peer tutor schemes similarly to Andrews and Clark (2011) and Husband and Jacobs (2009) who recommended comparable criteria for higher education mentoring programmes.

Studies such as Clarkson and Luca (2002) use case studies to demonstrate the benefits such as better learning of course content and the development of communication and interpersonal skills. However they do state the need for more specific peer tutor training and support.

3.1. Peer Assessment

Another strand within the theme of peer tutoring is discussed by Bostock (2000) and referred to as 'peer assessment'. This generally takes the form of one student assessing the work by another student using pre-set criteria. Boud, Cohen and Sampson (2001) promote the use of peer assessment alongside other modes of peer learning as do Searby and Ewers (1997) but it tends to be used more as a reciprocal means of improving understanding of the assessment process.

The literature on peer assisted learning suggests there is still a lack of clarity of the different terms and also a lack of quantitative evidence to demonstrate any link between the interventions and improved academic success. For this particular intervention the emphasis is often on the benefits for the tutors who are said by

Whitman (1988) to gain a better understanding of the subject by reviewing and organising the material to be taught.

Cook-Sather, Bovill and Felten (2014, p100) suggest that these types of partnerships produce similar outcomes for both students and the faculty. Benefits such as increased engagement, enhanced motivation and learning as well as the development of meta-cognitive awareness and a stronger sense of identity are reported. The authors go on to suggest that this type of partnership improves teaching and the classroom experience.

These findings also lack evidence of increased academic performance for those in receipt of the support with the benefits reported being more anecdotal. The lack of clarity in the definition of the intervention and the process also persists.

4. Peer Coaching

The literature on Peer Coaching is less abundant than the other forms of peer support within the context of higher education and in the main focuses on peer coaching within the constraints of teacher training and development. For example Skinner (1996), Rhodes and Beneicke (2002) and Murray, Xin and Mazure (2009) all advocate the use of peer coaching to improve teacher performance. Skinner and Welch (1996) adopt the coaching process described by Valencia and Killion (1988) in terms of teams of teachers who regularly observe one another and the provision of support, feedback, companionship and assistance. Murray, Xin and Mazure (2009) conducted a small study where the teachers being coached considered it a positive experience although it was not associated with improved academic performance by their pupils. Rhodes and Beneicke (2002) considers the management implications for schools wishing to implement such schemes whilst Kohler (1997) attempted to obtain evidence of accomplishment of teachers' instructional change. In this last study however, what is termed the reciprocal model of coaching was not adopted as just one of the teacher participants was sufficiently experienced and trained to perform the coaching role. As with the other peer relationships reviewed, the definitions of peer coaching differ from author to author. Some such as Huston and Weaver (2008) describe the process as collegial and voluntary to improve or expand their approaches to teaching. Others such as Cox (2012) report a broader definition where the coaching is not restricted to the development of improved classroom techniques and the participants take turns to coach each other.

Two different models of coaching are differentiated and described by Ackland (1991) as the 'expert' model and 'reciprocal' model. The 'expert' model is described as a strategy to help professional teachers align content-specific standards with instruction and student learning. The 'reciprocal' model would categorise the informal traditional mentoring programmes among teachers. Earlier than this Garmston (1987) distinguished different models of teacher coaching, identifying three types as technical, collegial and challenge. Each are described as a different process with differing aims and objectives which range from transferring training to practice to resolving a problematic state. As has been discussed in Chapter 1, Foltos (2013) suggests that successful coaches should not routinely take on the role of expert. He advocates instead creating a private and friendly relationship, stressing the importance of being supportive.

As with the other forms of peer support the definition of the term 'coaching' varies as does the description of the process. For example, Donegan, Ostrosky and Fowler (2000) describe the process as an expert teacher giving support, feedback and making suggestions to untrained or less skilled peers which would indicate a more directive approach. Parsloe and Wray (2000) who discuss the various definitions state that the general consensus appears to be that mentoring is instructional whilst coaching is non-directive. They do state however that the boundaries are not firmly set. Ives (2008) discusses the different approaches used in coaching in differing contexts and concludes that some approaches strongly discourage advice giving whilst others suggest that coaching requires guidance. Stober and Grant (2006) agree that the term coaching has become increasingly difficult to define. As with mentoring, there is still a lack of clarity in the definition.

Within the context of undergraduate peer coaching, the categorisation of 'expert' would be difficult to justify. The peer coaches in this study comprised mainly of second and final year students with limited experience of coaching. For many the peer coaching was a new activity embarked upon having just received training. Neither does the intervention fall into the category of reciprocal coaching as the coaches are generally older and more experienced students and do not expect to receive any support in return.

Van Nieuwerburgh and Tong (2012) conducted coaching studies with student participants. They drew attention to the fact that little research had been conducted within an educational setting or on the effects for the coach. The study adopted a different model of coaching to the 'expert' or 'reciprocal' model which comprised of A

level students coaching GCSE students over a nine month period on a one to one basis. The findings focused on the perceived benefits for the coaches rather than the pupils and were mixed concluding that further research should be done focusing on this specific area. Although a mixed methods approach was used to explore attitudes to learning and academic performance, the small sample size of 25 in the coaching group and an additional 25 in the control group limits the confidence that can be held in the findings. Sue-Chan, Wood and Latham (2012) also comment on the lack of empirical study of the determinants of coaching effectiveness.

Ladyshevsky (2006) also reported learning effects by participants but the study focused on the characteristics required for successful peer coaching relationships and centred mainly on the coach perspective. A similar study by Zwart (2009) also identified the five characteristics of a reciprocal coaching programme in relation to teacher learning.

Another study with more relevance to this research was conducted by Short and Baker (2010). They aimed to gain an insight into peer coaching for undergraduates using a similar mixed methods approach to the one adopted in this study. However the quantitative data analysis was again compromised by the very small sample size of eight participants. Merian and Snyder (2015) also conducted a small scale study of 18 participants reporting increased confidence and improved student athlete learning through a peer coaching programme. Gurbutt and Gurbutt (2015) also reported benefits from training members of staff to coach students although there was some doubt expressed from the participants about the amount of time it would take to engage the students. They go on to say that coaching in HE has the potential to deliver real benefits as it does in management contexts with it focusing on goal achievement, learning and development. These studies all relied on self-reported participant perceptions.

Parker, Hall and Kram (2008) report on two educational peer coaching initiatives referring to them as 'Share and Compare' whereby students pair up after a class to share and reflect on their learning. The other is described as more intensive with students helping each other to process their self-assessment data. They conclude that there is evidence from the literature and their own personal experiences to suggest that coaching facilitates on-going development. Their findings, albeit limited to adult learners on an MBA course include a theoretical model of peer coaching for how it will best work. Factors such as choice in the selection of peer coach are important as is an emotional component within the process.

Another report within the context of higher education was conducted by Medd (2012), the focus being coaching for researchers, which identified the potential of coaching to support researcher performance. The report concludes that the use of case studies to demonstrate the current provision in the UK is required plus the development of pilot studies to explore innovative ways of providing coaching. He also raises concerns about the validity and reliability of studies measuring the impact of coaching.

These studies of coaching interventions again give some indication of the benefits of peer coaching suggesting that it enhances learning development and teacher performance. It has also highlighted the value for those delivering the coaching. However there appears to be a lack of significant empirical research to demonstrate improved academic attainment as a result of a peer coaching intervention. There also appears to be a lack of research using robust quantifiable methods incorporating use of a control group with sufficiently large sample sizes to provide statistical evidence of improved academic attainment. In addition there is a little consistency in the definition of the term 'coaching' that could also lead to misperceptions.

Summary

Evidencing the Efficacy of Peer Support

The literature reviewed above mostly supports the concept of peer support as being beneficial typically by using a qualitative approach. It is reported that there are benefits for both those who are supported as well as for those who offer the support. It should be noted however that there is some evidence to suggest a downside to peer support. Parker, Hall and Kram (2008) reveal a number of factors that can result in negative outcomes such as a lack of skills relevant to the peer's needs or a failure to listen attentively. Kruger and Dunning (2009) also point out the danger of being incompetent but unaware of it. Long (1997) suggests that in some circumstances mentoring can be detrimental to the mentor, the mentee or both. This is also something that Jacobi (1991) first highlighted in her review and has been more recently pointed out by McClelland (2009) who explores mentor or mentee aggression. Also, as has been seen previously in this review, Klauss (1981), Kram (1985) as well as Mee-Lee and Bush (2003) infer that formal mentoring relations may not be as beneficial due to factors such as personality conflicts, time constraints or a lack of commitment.

In comparison with literature on the benefits of peer support however this more negative literature is minimal but should not be ignored. Risk of such outcomes should be minimised by the implementation of rigorous guidelines for recruitment, screening and training of participants as described previously. These types of guidelines for best practice are plentiful and include recommendations for mentor screening and recruitment as seen by Husband and Jacobs (2009) and Andrews and Clark (2011). Goodlad (1998) too provides similar guidelines for peer tutoring.

There is surprisingly little recent research to demonstrate that peer support within a higher education setting, in any of the known forms, specifically results in improved attainment for the recipient. A number of authors such as Kulik, Kulik and Shwalb (1983), Jacobi (1991), Capstick (2004) and Medd (2012) call for studies of a more quantitatively robust nature to determine the impact of peer support within a higher education setting. The authors state that many studies have not used acceptable methodological processes and call for more robust methodology to be used in such studies with particular reference to the appropriate use of control groups. Whilst these criticisms of previous literature have been identified it may be that some of the issues raised are to a degree insurmountable. It will be seen that control group selection is difficult and that only limited approaches are available within this context. Trusted methods of control group selection such as stratified sampling and randomised selection may result in denying or delaying support to students who request it which would be unethical. Attrition of research participants is also problematic resulting in missing data again compromising some of the studies. Mosely (1997) reports the difficulty of collecting data from control group participants as they have no vested interest in the intervention. Sanchez, Bauer and Paronto (2006) and Short and Baker (2010) seemingly experienced a similar difficulty in collecting post intervention data.

One piece of work that was conducted using more robust methodology incorporating the use of a control group was Storey's (2005) literature review of school mentoring programmes. This provided quantifiable evidence that mentoring raises attainment in school pupils. For example Huddleston, Hirst, Leisten and Maguire (2004) found that 64% of mentored young people achieved A* - C grades in Science as opposed to 32% of non-mentored pupils. McNamara and Kelly (1996) found that after mentoring average grades were higher than in previous years – 5.6 compared to 3.7. To date there is little comparable research findings of this nature to be found for peer support programmes within a higher education setting.

It would seem that despite the abundant literature on the efficacy and implementation of peer support programmes, there does appear to be room for a more methodologically robust approach in determining the effect on academic attainment of the participating students in a higher education environment. Whilst the methodologies used in some studies had been robust, in a number they had been compromised by either low numbers of participants or lack of clarification of the peer support process being explored.

Coaching or Mentoring?

Another theme that is apparent in the literature is the lack of congruency in the terms used to describe the nature of peer support. This was first identified by Jacobi (1991) but is repeatedly referred to in later literature such as D'Abate, Eddy and Tannenbaum (2003) who noted 13 different types of developmental relationship. Haggard, Dougherty, Turban and Wilbanks (2011) in their meta-analysis also found 40 different types of peer support.

It has already been seen from this literature review that the description and name given for an intervention vary tremendously. Leidenfrost *et al.* (2011) and Fox and Stevenson (2005) for example all researched a mentoring programme but the intervention is described as group work with an academic focus. These studies could therefore easily have been named and included under the theme of peer tutoring.

There appears to be even more discussion and inconsistency with the terms coaching and mentoring. Hadden (1997, p17) described coaching as 'the discussion process between two partners aimed at exerting a positive influence. Since coaching is a critical part of mentoring, an effective mentor will have well developed coaching skills'. Many suggest that traditional mentoring involves supporting an individual to develop their general skills, whereas coaching is more strongly associated with the development of one specific skill. Parsloe and Wray (2000) noted that although the boundaries are not firmly set, the general consensus is that mentoring is instructional whilst coaching is non-directive. Others state that coaching activities tend to occur over a short time period, whereas mentoring is the development of a relationship over a longer time period. Other authors such as Sperry (1996) argue that mentoring and coaching are the same. Wageman (2001) states that what occurs when coaches communicate and interact with recipients is not well understood because the behaviours that constitute coaching are specific to the organisational context in which the coaching occurs. Much earlier Gray (1988) discussed the confusion in the

term mentoring and D'Abate, Eddy and Tannenbaum (2003, p361) suggested that this confusion was only the 'tip of the iceberg'.

Bozeman and Feeney (2007) suggested that the multiple meanings of mentoring has added complexity and in some instances ambiguity. Merriam (1983, p165) notes that 'How mentoring is defined determines the extent of mentoring found'. D'Abate, Eddy and Tannenbaum (2003, p361) also explores this problem suggesting that 'conceptual confusion occurs when descriptions of the same construct vary from author to author'. Marsick and O'Neil (1999) note that comparing and contrasting multiple constructs is difficult without agreement on the core meaning of a term. D'Abate, Eddy and Tannenbaum (2003) however go on to suggest that the individual constructs of an activity should be broken down and defined enabling comparisons to be made. They conclude by recommending that researchers explicitly state their assumptions about the characteristic they are studying in an effort to move towards conceptual clarity.

What is apparent and seemingly well recognised is that there still exists a great deal of confusion between all these terms. In view of this lack of clarity the latter two recommendations are adopted for this study. A precise definition and description of the term 'peer coaching' process is provided and identified in Chapter 1.

Following on from this theme of ambiguity in terms used to describe peer support is the lack of description to describe the process and nature of the intervention. As well as a precise definition of the exact nature and characteristics of the peer support, the foci should also be on the whole process of the intervention. If explicitness in the term coaching is of high importance then logically so too should be the whole process undertaken by the participants.

It has already been identified that good practice and guidelines, such as thorough screening of coaches and mentors, need to be adhered to in order to obtain optimum results by Andrews and Clark (2001), Husband and Jacobs (2009) and Goodlad (1998). Hansford, Tennent and Ehrich (2004) suggested that some programmes were poorly planned and inadequately resourced. It follows therefore that a very precise description of the intervention as a whole process is provided too. For example Reid (2008) claims that the exact nature of expectations and boundaries is a crucial element in supporting peer mentors. Storrs, Putsche and Taylor (2008) also suggest that in order for mentoring relationships to be successful there must be clarity and consensus of roles. D'Abate, Eddy and Tannenbaum (2003) sensibly

argue that no comparison can be made without agreement and consensus of the constructs. It is then possible to conduct robust research on the outcomes and so the process for the intervention should also be defined in the same way. In many of the studies explored, neither the nature of the programme nor the processes are described in great detail as it will be in this study.

Despite the plethora of available literature on the subject of peer support in higher education, there does seem to be some re-emerging themes and gaps. Whilst the majority of evidence would suggest that peer support does impact on student success, there does appear to be a lack of methodologically robust, quantitative studies to suggest that it impacts on academic attainment. In many studies such as Short and Baker (2010), van Nieuwerburgh and Tong (2012) and Merian and Snyder (2015) the lack of sufficient quantitative data has limited the findings. Short and Baker (2010) suggest that the small sample size was perhaps more conducive to qualitative rather than quantitative study. As has been seen a number of authors such as Kulik, Kulik and Shwalb (1983), Jacobi (1991), Capstick (2004) and Medd (2012) all call for evidence of a more quantitative nature to support the qualitative evidence collected thus far.

In addition to this, the confusion in the terms used to describe the peer support interventions has created ambiguity in the research findings. This lack of clarity has been evident since Gray (1988) who first identified this confusion and still being recognised by others such as Kulik, Kulik and Shwalb (1983), Jacobi (1991), D'Abate, Eddy and Tannenbaum (2003) and Stober and Grant (2006).

In light of this review and despite the abundance of literature on the topic, there does appear to be room for a more methodologically robust approach in determining the effect on academic attainment of the participating students within a higher education environment. In conjunction with this, greater clarity is available on the exact nature of the coaching intervention enabling the findings to be easily compared and contrasted to future studies of a similar nature. As has been seen in the introduction on page 4, the comparison and analysis of actual academic grades of coached and non-coached students is stated as one of the main aims of this study. Figure 2.3 shows the conceptual framework used for this study.

PEER SUPPORT IN HIGHER EDUCATION

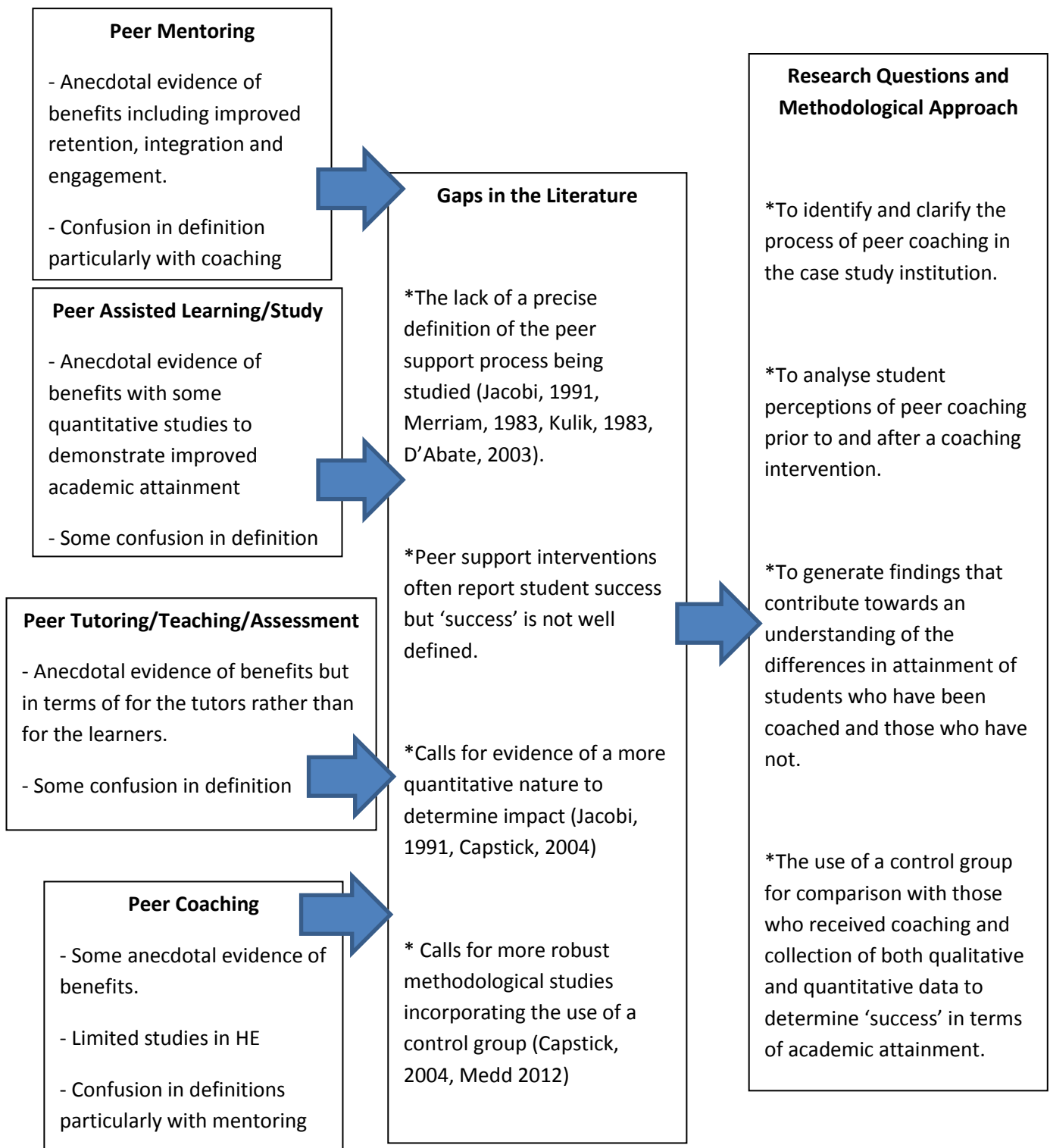


Figure 2.3 showing the conceptual framework for the study

In this study a full description is provided of the coaching process undergone by all the participants. This includes an account of the training process for the coaches as well as the support provided and for the matching process. This will allow an accurate comparison of the findings to be made. The study utilises some of the more defined approaches suggested, taking into account recommendations made by other authors such as D'Abate, Eddy and Tannenbaum (2003) who calls for better clarification of terms and more robust methodology. It provides a robust methodological approach with the use of a control group enabling a comparison between coached and non-coached participants. The study also provides a detailed description of the peer coaching process which will help inform the practice of other higher education institutions. The research design was created using some of the more successful methodologies that had already been utilised to demonstrate improved academic attainment.

Providing evidence of impact of peer coaching on academic attainment will guide higher education institutions in forming strategies and interventions to promote student success. Clarifying and detailing the process and nature of the peer coaching intervention will also help to inform the practice of higher education institutions and beyond.

CHAPTER 3

Methodology

As has already been discussed in the review of the literature, there is an abundance of research already available on the topic of peer support in higher education and in particular, 'peer mentoring'. Despite this abundance it was found that there is little research that evidences the impact of such an intervention on the actual academic attainment of the participating students. The aim for this research was to build on previous studies and findings but to use a different and more robust research approach with a focus on academic attainment. Much of the empirical research identified comprised qualitative methods and anecdotal evidence on student perceptions to demonstrate that a peer support programme led to student success. This was explored by many including Pitkethly and Prosser (2001), Hill and Reddy (2007) as well as Keenan (2014).

What was also found was that where the research did include quantitative evidence of academic improvement such as Erkut and Mokrus (1984), Ashwin (2003) and Rodger and Tremblay (2003), the nature of intervention itself was either open to interpretation or lacked a precise description. In other studies using quantitative methods, the data was compromised by the small sample sizes such as Short and Baker (2010).

The intention of this research was to gather quantitative data on academic grades pre and post peer coaching to ascertain any improvements made in academic attainment. The use of a control group of non-coached participants for comparison was also an essential ingredient in determining the impact of the peer coaching programme.

To seek evidence of this nature suggested a deductive approach. However quantitative data on its own was unlikely to reveal a full explanation of the findings due to other possible factors. Qualitative data was likely to reveal more about the process of peer coaching and student perceptions. For this reason and to reveal a fuller explanation of the findings, the collection of qualitative data was also necessary. To this end a mixed methodological approach was deemed to be the most appropriate approach to take. Fry, Chantavanich and Chantavanich (1981) suggested that using qualitative methods to supplement quantitative analysis may contribute to the generation of new ideas. They argue that it can even explain or

counter anomalies faced when analysing quantitative data and so this element was included in the research design.

Creswell and Plano Clark (2011) propose four basic mixed method designs, one of which is the convergent parallel type. This design is where concurrent timing to implement the quantitative and qualitative strands is used during the same phase of the research process. It also prioritises the methods equally, keeping the two strands independent during analysis but mixing the results during the overall interpretation. They suggest that the convergent design is best when there is a need to corroborate quantitative data and uses pragmatism as an umbrella philosophy. This design was well suited to the research question as the intention was to compare the module grade data with the student perception data collected and draw comparisons.

Johnson and Onwuegbuzie (2004) suggested that research approaches should be mixed in ways that offer the best opportunity of answering the research questions. I felt this methodologically pragmatic approach as described by Goldkuhl (2012) was most appropriate for this study. In particular Goldkuhl refers to 'methodological pragmatism' which is concerned with how knowledge is created as opposed to what has been said about constructive knowledge as a basis for action as in 'functional pragmatism'. As a researcher, although I was to be exploring the impact of a coaching intervention on others and analysing the effects and successes of tactics, primarily the objective was to use the constructive knowledge obtained to inform and improve practice.

Mason (2006, p10) highlighted the value of mixing methods arguing that 'social experience and lived realities are multi-dimensional'. She suggests that 'our understanding is impoverished and inadequate if we view these phenomena only along a single dimension'. She cautions against using quantitative data analysis alone which although useful to demonstrate trends and correlations, lacks the explanatory edge that qualitative data can bring. However as a mixed methods research design brought with it issues of data validity, it was important to recognise the possible tension between induction and deduction as described by Morse, Niehaus, Wolfe and Wilkins (2006) and give consideration to the theoretical drive. They suggest that the nature of the research question determines the theoretical drive of a research project which requires a process that is consistent with its purpose. Morse *et al.* (2006) go on to say that maintaining the theoretical drive is what ensures the validity of the project. This study could be considered to have a

deductive, theoretical drive as its aim is to enhance quantitative description and understanding by the incorporation of qualitative data.

I have a background in developing and delivering peer support programmes over many years and have always striven to provide more than just anecdotal evidence of the quality and benefit of the intervention. I have also endeavoured to produce quantitative data to confirm and strengthen the argument for implementing them, demonstrating a propensity towards this type of approach. The emphasis of the needs of the research problem also called for mixed methods, signifying that a pragmatic paradigm would be a suitable methodologically paradigmatic approach for me to use for this study.

Morgan (2007) described the pragmatic approach as relying on abductive reasoning, moving back and forth between induction and deduction. The intention was to analyse the datasets simultaneously and identify any correlation in the findings between perceptions and actual academic attainment which also confirmed that the pragmatic approach was particularly suited to the research problem. This abductive process is also recognised by those combining qualitative and quantitative methods in a sequential fashion such as Ivankova, Creswell and Stick (2006).

Goles and Hirschheim (2000, p262) welcome the introduction of pragmatism clarifying its appeal as an alternative approach to research. They suggest that pragmatists decide what they want to study and are guided by their own personal value systems. They study what they think is important to study and in a way that is congruent with their value system using units of analysis that they feel are most appropriate for finding an answer to their research question. They suggest that 'pragmatism recognises the importance of theory as a means of explaining and predicting phenomena, whilst subjecting it to the test of practice and time in order to determine its usefulness or value'.

Tashakkori and Teddlie (1998) also suggest that pragmatists should study their topic in a way that is congruent with their own value system and Hoshmand (2003) states that the pragmatic paradigm supports research approaches that can be 'mixed fruitfully'. I would suggest that to best answer this particular research question, the combination of an interpretative and deductive approach would indeed provide fruitful findings. Exploring qualitative data from the coached students as well as quantitative data in the form of academic attainment was more likely to result in a fuller explanation of the research question than by using a single paradigmatic

approach. In addition to this it rested well with my own values and beliefs and was congruent with the methods that I had previously adopted in my work.

It should be noted however that critical realists as well as pragmatists advocate that the choice of method for a study should be dictated by the nature of the research problem. It might have therefore been argued that this approach would have been better aligned to the study. McEvoy and Richards (2006, p69) suggest that the ultimate goal of critical realist research is 'not to identify generalisable laws' but 'to develop a deeper understanding' of reality. The emphasis for this study however, was to identify the differences in the academic attainment of those students who have been coached and those who had not. Had the sole aim been to seek a better understanding of why things are as they are, described by Easton (2010, p119), taking into account 'the use of causal language with thinking' then a critical realist perspective may have been more appropriate.

Deforge and Shaw (2012, p93) suggest that whilst pragmatism and critical realism are not dissimilar, as 'each convey a kind of *perspectivism*', their differences are marked by that which they give primacy to. They claim that critical realists tend to forefront ontological considerations, focusing on hidden, taken for granted structures from the 'real world' whereas pragmatists tend to give precedence to epistemologically and experientially warranted issues.

The production of transferable findings is more closely aligned to a pragmatic approach which again would point to the use of this methodology. Goldkuhl (2012, p135) suggests that 'pragmatism is associated with action, intervention and constructive knowledge'. The intention of this study was to establish transferable findings and knowledge that would hopefully help advance the practice and inform the strategies of other higher education institutions. The main focus of the study is to establish what difference the coaching intervention made in practice. These findings would also serve to inform peer coaching theory as opposed to just testing whether a theory is regarded as true or otherwise. As stated by Johnson and Onwuegbuzie (2004), pragmatism offers a practical and outcome orientated method of enquiry that is based on action and leads to further action and the elimination of doubt. This too aligned well with the aims for this research.

Morgan (2007) stated that the strength of the pragmatic approach is its emphasis on the connection between epistemological concerns about the nature of the knowledge and technical concerns about the methods we use to generate that knowledge.

Johnson and Onwuegbuzie (2004) and Scott (2007, p5) suggest that pragmatic research should be judged upon its practical applicability rather than its truthfulness or correspondence with an external reality. Whilst this research problem called for a pluralist approach to produce the richest findings obtained from both the qualitative and quantitative data, its aim was to produce transferable findings to inform practice. For these reasons a pragmatic approach was selected to conduct the study using mixed methods to collect the data.

Case Study

For the purpose of this study, an established and well run peer coaching programme in one higher education institution was used as a case study. It had a dedicated team to deliver it and incorporated best practice as identified by Andrews and Clark (2011). Case study is one of the most flexible of research designs and particularly useful in researching institutional systems since it allows different perspectives and contextual issues to be taken into account. Denscombe (2010) suggests that the subject of a case study should be chosen deliberately on the basis of specific significant attributes that a researcher wants to investigate. The higher education case study institution in this research was selected as it is unique in having a large, well-developed and established programme of mentoring and coaching interventions all of which adhere to identified good practice by Thomas (2012). An established peer coaching programme was used as the case study in this particular higher education institution.

Easton (2010, p119) suggests that the adoption of a pragmatic approach can provide a powerful justification for the use of case study as it offers the possibility of studying a problem defined situation in great detail. Widdowson (2011) reviews different ways in which case studies can be used to answer different research questions such as the pragmatic question in this research. He suggests that the use of descriptive statistics and the construction of large databases allows inferential statistics to be generated and for logical conclusions to be drawn. He suggests that if large enough numbers of single cases are studied, it could support the process of generalisation and in the case of this study, inform practice.

Yin (2005) refers to the significance of case study particularly within education stating that statistics is not what education is about. He suggests that to understand the world of education means bringing to life what goes on in the setting and that case studies fill this need. He suggests that case study can provide both descriptive

richness and analytic insights. Chapter 4 provides three individual case stories of students who took part in the peer coaching. These individual case stories recount the peer coaching process through the contact logs provided by the coaches and through their email communication. They add richness to the quantitative data provided in Chapter 6. Yin (1994) also deems the use of case study as being appropriate when it represents a unique or extreme case that is of intrinsic interest to the researcher. This makes a strong case for the selection of this particular institution.

In order to answer the research question, it was important that the study took place within a higher education institution where peer support programmes are embedded and well-practised. This was essential to avoid the confusion that has already been identified in the literature concerning the definition and practice of coaching and mentoring. The case study institution named as SE University has developed and delivered both mentoring and coaching programmes for over 10 years and has a dedicated team to deliver them. This made a robust argument for using SE University as the case study institution of choice. As was seen in Chapter 1, the case study institution adhered to good practice in all the mentoring and coaching programmes delivered there and had robust measures in place for training and supervision of all participants. It also had a dedicated team to deliver the peer coaching intervention.

Peer support at the SE University is extremely well embedded into the student ethos with over 350 students training each year to coach or mentor other students or in some cases, pupils in schools. The programmes developed include alumni mentoring to support those in their final year into work to buddy mentoring for international students as well as supporting those with a disability or from a widening participation background. What each of these programmes has in common is adherence to exemplary practice mentoring and coaching. The SE University has often contributed to national conferences in order to share the good practice coaching and mentoring programmes that it has developed.

There is a stringent recruitment procedure in place to ensure that the students have the necessary qualities to take part and a requirement to attend the full two day training programme before being matched with a fellow student. The training programme can be found in Appendix 3. Every mentor and coach is also supported throughout the process and attendance at support workshops is part of their initial commitment to the programme. All students who apply for the support are given an

induction as to their responsibilities within the relationship and given as much choice as is feasible in the matching process. Students generally select from profiles, the coach of their choice. These processes comply with the Mentoring and Befriending Foundation guidelines who awarded institutional accreditation to the case study institution in 2012. The importance of adherence to good practice guidelines was seen from the literature to be a significant aspect to the success of a peer support programme. Husband and Jacobs (2009) and Andrews and Clark (2011) suggested that this is essential for the success of a peer support programme. The Peer Coaching programme that was the focus of this study was also subject to these guidelines.

It is important too, to be explicit about the exact nature of the support so as to avoid the confusion that was apparent in the terms used to describe different types of 'peer support' within the literature. Marsick and O'Neil (1999) sensibly suggested that comparing and contrasting terms is difficult without having a core meaning. It was seen that the description of some of the peer support interventions varied immensely, eg. Gray, (1988), D'Abate, Eddy and Tannenbaum (2003) and Bozeman and Feeney (2007).

For the sake of clarity in the case of this peer coaching programme, the peer coaching intervention comprises of one to one meetings over a period of up to 12 weeks. The coaches are trained to be non-directive and to ask open questions, allowing their coachee to make their own choices as to how to proceed. The coaches are also trained to action plan, agree and set goals and to give appropriate feedback. Coaches are taught about the boundaries of the relationship and the dangers of sharing their own work with their allocated coachee/s regarding plagiarism and collusion. The relationship is generally between an older peer (the coach) and a less able and less experienced student (the coachee).

The ongoing evaluation of the coaching and mentoring programmes at SE University has been rigorous and both qualitative and quantitative data has been collected in order to provide this. Permission was sought to access some of this data to add to the data collected solely for the purpose of the study. The Peer Coaching programme at the case study institution emerged as the result of a pilot 'retention mentoring' programme that had been delivered three years previously. The data from this programme demonstrated increased student satisfaction results as well as improved retention rates. There was also qualitative evidence to suggest improved academic attainment as an unexpected result. This programme was subsequently

further developed and directed at students who were not achieving their full academic potential and who self-referred. It is this particular programme that is the subject of the research.

Consideration needed to be given however to the fact that the case study institution does not offer a particularly 'typical' coaching programme with a dedicated team and such rigorous procedures in place. In addition to this the scale of the provision is somewhat larger than many other higher education institutions. The coaching and mentoring team facilitate a number of mentoring and coaching programmes including the peer coaching programme that is the focus of the study. Over 350 students are trained each year to take part who then go on to support over 1,500 students as part of the provision. This uniqueness may impact on the transferability of the findings but would serve to endorse an explanation of what works in practice. The participants in the study too, would perhaps limit any generalisability of the findings as consideration will need to be given as to how representative they are of the more general student population within other Higher Education institutions. However the study would also provide 'procedural knowledge' as described by Hjørland (1997) which could be used to improve practice.

Argyris (1996) states that learning is hampered when practitioners fail to specify the operational definitions they use or the procedures that can be used for testing the validity of their claims. In this study the peer coaching intervention itself is fully described and the process detailed within the case stories in Chapter 4. It also provides valid theory in the 'propositional mode' described by Warren, Moore and Elliott (2002). Pragmatically valid theory in the 'propositional' mode contains three major components: Firstly, explicit and causal propositions; secondly, rules that practitioners can use to test out the validity of these causal claims and thirdly, explicit statements of how the results are created. They argue that propositional knowledge has deductive and generalised features. The findings of this study will explicitly demonstrate the impact of a peer coaching intervention when delivered under certain described conditions. The quantitative data provided aids in the description of how the findings were obtained.

Through my own evaluations and several other sources of literature on peer support in higher education, the benefits had already been demonstrated in a number of ways. As was seen from the literature, these benefits included reduction in student attrition rates, cultivating social integration for new students and in skill development

for the mentors. This study sought to determine impact, if any, on academic attainment and provide constructive knowledge for improving and informing practice.

Knowing my prior role within the case study institution it may therefore quite justly be assumed that I might have been strongly biased in the presentation of the findings and even in the analysis of the data. For this reason reflexivity was important throughout my work on the thesis. As described by Finlay and Gough (2003) I could use this knowledge and awareness to warrant a more 'objective' mission and ensure that all these aspects were taken into account when analysing the data. By doing so it would help eliminate any doubt in the validity and trustworthiness of the findings.

My previous role within the case study institution might have been perceived as a hindrance as I could conceivably have brought a bias that the peer coaching would result in improved academic attainment. However, by adopting a mixed methods approach, safeguards were incorporated in order to avoid partiality when analysing the data. Methods such as investigator and data triangulation, described by Guion (2002), were utilised when analysing the qualitative data whilst the statistical tests on the quantitative data were less open to differing interpretation. Using a mixed methods approach allowed the findings to be more defensible and less open to interpretation.

However, due to the differing ontological and epistemological assumptions, triangulation of different methodologies can be difficult to combine as has been identified by Blakie (1991) and Curry, Nembhard and Bradley (2009). Everest (2014) suggested that researchers skilled in qualitative research may not be as skilled in quantitative methods and vice-versa. In my particular circumstances, as has been previously identified, I had commonly adopted a mixed method approach to determine the impact of the coaching and mentoring programmes delivered previously and felt equally competent in both domains.

Another method for overcoming any bias that I might bring was to use awareness of the situation as means to monitor and audit throughout the research process. One process for achieving this, advocated by Etherington (2004), was to keep a research journal, noting and reflecting upon my internal and external responses and behaviours. I also engaged in discussion with the Ethics Committee about remaining outside of the delivery team responsible for facilitating the peer coaching programme. It was subsequently agreed that I would not take part in the recruitment

process, training or support of those participating in the peer coaching programme so as to avoid influencing their views.

Finlay and Gough (2003, p23) suggested that many researchers will 'have a vested interest in studying specific topics' which I would agree is in fact likely to be true. In view of this and the fact that I have generally leant towards a more post positivist stance when exploring the impact of the mentoring and coaching programmes, I feel comfortable that the findings have been presented in a meaningful way that other higher education institutions may find useful. I believe that my prior use of both interpretivist and positivist approaches allowed me to conduct a more useful and defensible study. Cherryhomes (1992, p14) states that the pragmatist begins with 'what he or she thinks is known and looking to the consequences he or she desires and would pick and choose how and what to research and what to do'. If this is true then as long as the necessary steps were taken to ensure that the findings were reliably analysed and conveyed then researching this topic within my own organisation is defensible.

Action research was another approach that was a consideration for completion of this study especially as it has strong links with pragmatism. Denscombe (2010) suggests that action research is useful where the purpose of the research is to produce guidelines for best practice. Inevitably in producing findings from a peer coaching intervention demonstrating an improvement in academic attainment may well provide an outcome such as this. However the time constraints of the research did not allow for the necessary cycles to be implemented within the case study institution, rendering it a less useful approach. Additionally, the research problem was to focus specifically on the possible effect of peer coaching on academic attainment of higher education students so additional data collection would have been necessary. Subsequent action research however could be conducted in order to ascertain the 'best practice' required in order to maximise student achievement through peer coaching.

Participants

The SE University has around 25,000 students and an original target number of 200 undergraduates was envisaged to take part in the peer coaching programme.

Permission was sought and awarded by the Pro-vice Chancellor at SE University through the Ethics Committee for the student module grade data to be accessed. In

addition ethical approval was also obtained from the Ethics Committee at the awarding institution, Oxford Brookes.

Subsequently 150 students who had been matched with a coach as part of the programme, agreed to take part in the study. Once the students had applied for coaching they were invited to participate in the study and give consent to take part in focus group sessions and allow access to their student record so that their module grades for that year could be extracted. The details of the study were explained to them after the coachee induction session and they were invited to ask any questions. The participant information sheet can be found in Appendix 4. If they declined to take part in the study, they were informed that this would not affect their application for a peer coach. All were undergraduate students at varying levels of study. The students ranged across eight academic schools and a variety of courses. The actual numbers of coaches and coachees who took part in the programmes and agreed to participate in the research is shown in Table 3.1

Academic School	Number of peer coaches	Number of peer coachees
Life & Medical Sciences	20	30
Law School	17	23
Business School	21	40
Engineering	7	13
Physics, Astronomy & Maths	8	13
Humanities	9	16
Education	8	14
Nursing	1	1
Total Number	91	150

Figure 3.1 Breakdown of student participants who took part in the peer coaching

Year	1st (level 4)	2nd (level 5)	3rd (level 6)	4th year	Post Graduate
Number of students	82	52	14	2	0

Figure 3.2 Breakdown of students into separate year groups

The lower numbers of third and final year students is explained by the fact that the programme is not actively promoted to these groups. This is because they are more difficult to match with an older, more experienced peer and the only coaches who are available for them are Alumni of which there is a shortage. It should be noted however that four Alumni coaches were utilised on this programme.

A number of students who were offered the peer coaching but chose not to take part were also offered the opportunity to take part in the research programme in order to form the control group. Provision was made for those in the control group to later elect to apply for the coaching should they wish to do so in order that they were not disadvantaged in any way.

Consideration was given to the formulation of this control group to avoid bias, contamination and pre-existing attributes as described by Mosely (1997). Much criticism had been found from the literature review over the use of control groups and it was imperative to avoid similar mistakes. Capstick (2004) and Medd (2012) highlighted the need for more robust methodological processes with particular reference to using a large enough sample and use of a genuine control group rather than a group of non-attenders. Many of these measures were put in place to ensure that the control group used in this research did not fall foul of these suggested guidelines.

It was essential that the control group was carefully selected to satisfy the needs for the findings to be of practical use and to allow an unbiased comparison with the coached group. The control group could have been selected solely from those who expressed an interest in being coached but then not followed it up by completing the forms etc. Another consideration was to select students who had applied for a coach but were unable to be matched (with no coach being available for their specific requirements). However the process of being turned down and possible frustration and anger could also have an impact on the data generated from them.

Selecting students in these ways could result in the control group consisting of a different type of student or possessing different characteristics than the students who did actively pursue the coaching. It could have meant that those students fell into a group who lacked motivation, were coping well with their studies and felt no need for peer coaching or were perhaps too proud to ask for help which may reflect in the consequent grades of the group. It was also essential to select a control group who were suitably matched to the group of students receiving coaching as regards discipline, age, gender, ethnicity and course studied.

In an attempt to avoid these issues and possible biases and influences, the control group was formulated by promoting the opportunity to take part in the study and inviting students to volunteer. The opportunity to take part was promoted to those who had asked for information about the peer coaching programme but also

advertised through the managed learning environment at SE University. The participant details provided for those in the control group can be found in Appendix 2. The coaching programme had previously been offered to all these students but they had chosen not to apply. All students in this category were informed that they could at any time decide to apply for a coach but that would also necessitate the omission of their data from the control group. The participants in the control group are detailed in Table 3.3 and 3.4.

Academic School	Number of students
Life & Medical Sciences	20
Law School	18
Business School	35
Engineering	9
Physics, Astronomy & Maths	1
Humanities	7
Education	3
Nursing	0
Total Number	93

Table 3.3 Showing control group participants

Year	1st (level 4)	2nd (level 5)	3rd (level 6)	4th year	Post Graduate
Number of students	48	39	6	0	0

Table 3.4 Breakdown of control group students into separate year groups

Limitations of the control group

Difficulties in the use of control groups has frequently been discussed in the literature within many fields of research (Cole, 1979; Miettinen, 1970; Wacholder, Silverman, McLaughlin and Mandel, 1992). Randomized selection of control group participants is often cited as a robust method although this may still not be ideal or even practicable. Some authors such as Bryman (1998) suggest that conducting control group experiments within a laboratory setting may even impact on the findings due to the clinical surroundings. In this study, because those in the coaching group self-select, it is not feasible to utilise a randomized selection method to identify those in the control group. Denscombe (2010) suggests that field experiments, being conducted in the participant's natural environment, allows for stronger external validity but that there is a high price to pay in terms of the controlling the variables.

Selection of control group participants therefore is problematic and draws much criticism from researchers such as D'Agostino and Kwan (1995) who suggest that they are often performed with such restrictions that they do not provide a true measure of efficacy. To demonstrate effectiveness they suggest a non-randomized trial whereby the participants can be selected through matching to the control group.

However matching techniques, such as stratified sampling described by Fuller (1993) also brings difficulties as it is almost impossible to achieve a complete match of the control group with the experimental group. Whilst it is possible to statistically control for extraneous variance it is necessary to first know the factors that might impact on the findings. It is likely also that some important variables may go unmeasured. D'Agostino and Kwan (1995) suggest that the efficacy of this type of technique is contingent on the on the researchers ability to identify the important biasing variables.

As has been noted in previous studies of peer support interventions, the use of control groups has also been criticised for using a group comprised of non-attenders (Capstick, 2004). It was clearly not feasible to use a randomized control group within this study. An alternative approach may have been to deny the coaching to a proportion of those who applied for it and compare their data with those who were allocated a coach. However this would have been deemed as unethical to deny the requested coaching intervention to participants who had requested and needed it. Even then it would likely have proved impossible to achieve a complete match of the control group participants with the coaching group. The data provided by those who had been denied a coach might also have been affected by the withholding of the coaching intervention. Selection of a control group by creating a 'waiting group' of participants who had applied for coaching could have been used. However this approach too would be unethical as the timeframe for their studies did not allow for such a delay and would have deprived them of the intervention that they were seeking. These reasons were sufficient enough for the rejection of the methods of selection.

Under the circumstances, inviting students to be part of the study as a control group participant whether or not they had applied for peer coaching was the best possible option available. Frequency matching described by Gail (2005) seeks to assure that cases and controls have the same distribution over strata defined by matching factors. A purposive approach to selection, described by Denscombe (2010) to select the control group participants with respect to sex, age, course studied and

year group was utilised in this study. However it was not possible to match the proportions of participants available having these characteristics with the control group as can be seen in from the tables on pages 52 and 54. However some attempts were made to homogenise the groups. For example, students studying post graduate courses or on a programme who could not be matched with any student in the coached group were eliminated from the control group. Denscombe (2010) states the necessity of selecting two groups similar in terms of their composition, one identified as the 'treatment group' and the other the 'control'.

The method used to select the control group follows Mosely's (1997) discussion of the use of a quasi-experimental methodological approach as less intensive in its data requirements. This approach entails two populations being compared where one benefited from an intervention and the other does not. He suggests that this method calls for baseline data as well as post data collection. Mosely (1997) also discusses the issues of data collection from the control group who are unlikely to be motivated to provide it having had no connection to the activity being evaluated. This was certainly the case in this and other previous studies of peer support interventions.

In addition, whilst the matching process was less precise than expected, the need for precise matching is reduced as the sample sizes grow as the differences in the participants counteract each other. Denscombe (2010) suggests that with a larger sample size there will be some balance between the proportions within the sample and the proportions which occur in the overall population. Agudo and Gonzalaz (1999) suggest that each study should be evaluated on its own merits. In this study there is certainly some limitation in the selection of the control group since, as described, precise matching to the coached group was impossible. In addition there were possibly some differences in the motivation levels of the students who applied for coaching to those who did not. For some participants, the peer coaching had been recommended to them by a tutor. Whilst a proportion of these students did subsequently take the offer of a coach others who did not were invited to be part of the control group. Subsequently a mixture of students with differing motivation levels were recruited to each group and this variable was not measured. It is likely however that many of the students who formed part of the coached group self-selected to do so and as such could be perceived to have had higher levels of motivation at the onset. However the larger sample sizes used for the statistical analysis does in a small way counteract these issues.

The Research Process

Figure 3.5 shows the cycle of the research undertaken with both the coaching and the non-coaching control groups. It shows the sequence of the qualitative and quantitative data collection points and sequence of analysis. It can be seen that there were five sets of data collected. Pre-coaching perception data for the coached students and post-coaching focus groups, interviews and survey questionnaires in addition to secondary quantitative data in the form of module grades for both the coached and control groups.

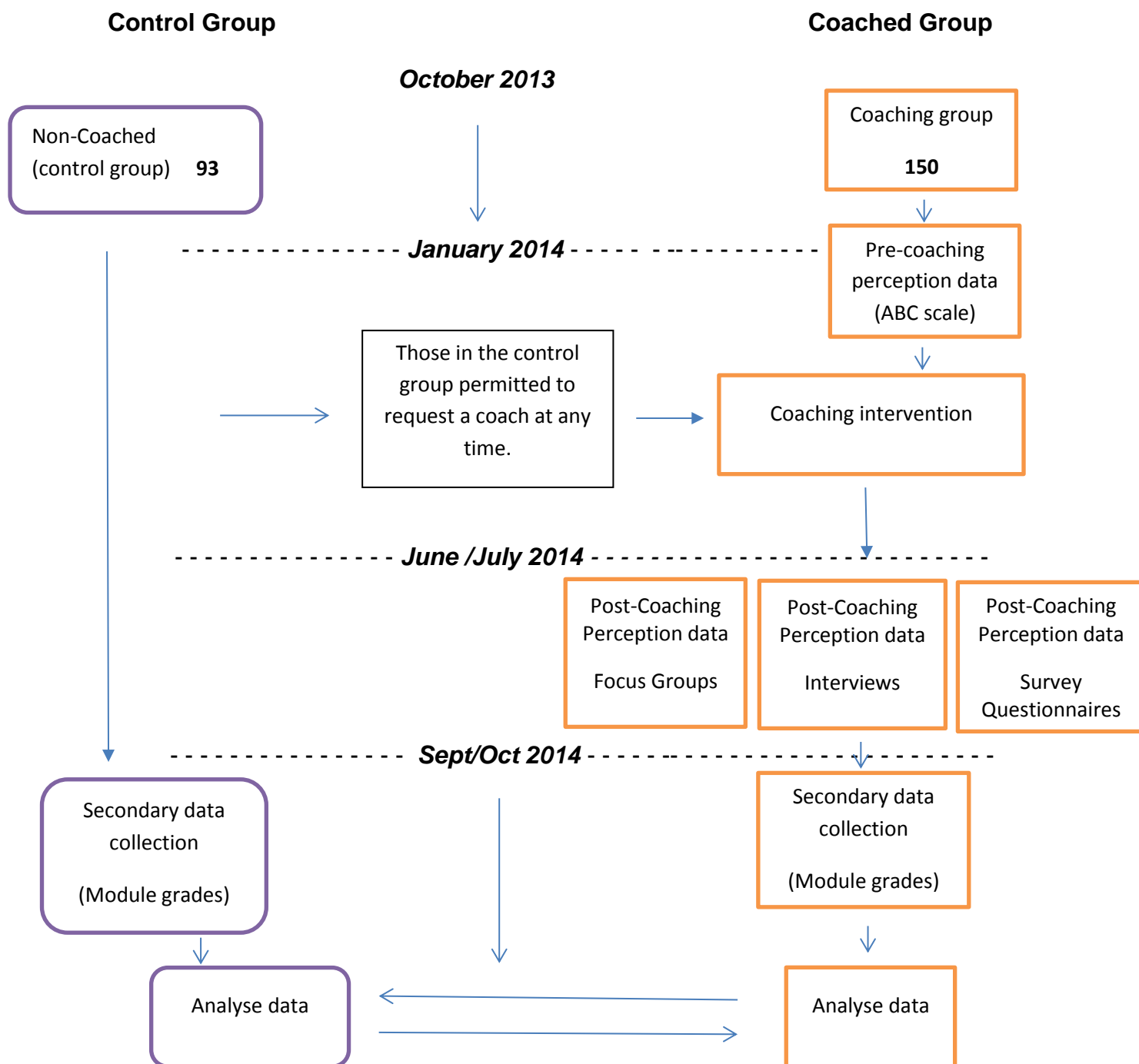


Figure 3.5 Cycle of Research

Pre-coaching Perception ABC Scale Data Collection

Whilst the aim of this study was to examine and compare the academic attainment of higher education students who had received coaching against those who had not in order to inform the practice of other higher education institutions, additional data could also enhance and perhaps explain the findings. Sander and Sanders (2009) developed the Academic Behaviour Confidence (ABC) scale questionnaire which has been widely utilised as a survey instrument in pedagogical research and practice in higher education (Willis, 2010, Wessen and Derrer-Rendall, 2011 and Chester, Buntine, Hammond and Atkinson, 2011). Although a moderately lengthy questionnaire, consisting of 24 questions, it does enable self-efficacy and self-concept to be measured.

The tool, which was guided by the work of Bandura (1993), reveals how the differences in students' expectations can be explained by differing levels of confidence. It was designed to measure academic confidence only. Self-efficacy has been seen to be the confidence that people have in the ability to do the things that they try to do (Pajares and Schunk, 2006). Pajares and Schunk (2006) goes on to say that the self and self-beliefs are increasingly being seen as key indices of achievement and motivation in educational settings. Bandura (2006, p309) suggests that perceived efficacy plays a key role in human functioning because it affects behaviour not only directly but by its impact on other determinants such as goals, aspirations and outcome expectations. Research into self-efficacy has also indicated that ability and self-confidence in one's ability makes a difference to academic success and in careers beyond education (Crozier, 1997). Sander and Sanders (2009) stress that in particular within a higher education context, where autonomy and independence of students are essential to success, self-efficacy affects academic performance.

Marton and Saljo (1976) also developed this work on academic student behaviour and identified two different levels of processing as surface-level processing and deep-level processing. Entwistle, Hanley and Hounsell (1979) went on to create the Approaches to Study Inventory (ASI) questionnaire. This 64 item questionnaire was designed to establish approaches to learning in varying academic contexts and define between a 'meaning' orientation and a 'reproducing orientation'. Richardson (1990) further developed the ASI and developed a 32 item questionnaire called the Approaches to Study Questionnaire (ASQ).

After careful consideration I elected to use the Sander and Sanders (2009) ABC questionnaire. A closer examination of the questions revealed that they were better aligned with the aims and objectives of the peer coaching than the ASI and ASQ. It was anticipated that the coaches would be aiming to raise confidence in their coachees, support them to better manage their workload and help them to plan revision schedules amongst other things. The coaching process is designed to promote self-efficacy. The ABC scale Likert scale questions were closely aligned to these aspects of academic student life such as:

How confident are you in your ability to:

- Prepare thoroughly for tutorials
- Plan an appropriate revision schedule
- Manage your workload to meet deadlines
- Ask for help if you don't understand
- Study effectively on your own/private study

In addition, the questionnaire is further broken down into four subscales, studying; attendance; grades and verbalising allowing for further exploration to be made on these specific areas.

In contrast, the Approaches to Study Inventory and Approaches to Study Questionnaire had more emphasis than the ABC scale on feelings on perhaps a more subjective rather than practical coping level such as:

- Often I feel I'm drowning in the sheer amount of material we're having to cope with (ASI).
- It's important for me to feel that I'm doing as well as I really can on the courses here (ASI).
- There's not much of the work here that I find interesting or relevant (ASI).
- The continued pressures of work – assignments, deadlines and competition often makes me tense and depressed. (ASQ).
- When I look back, I sometimes wonder why I ever decided to come here (ASI).
- I'm not really interested in this course, but I have to take it for other reasons. (ASI).

It is inevitable that some of the Likert scale questions contained in the ASI might impact on academic performance but another factor in the choice was the length of the questionnaires. The ABC questionnaire contained just 24 items as opposed to 64

in the ASI making it less time consuming for students to complete. From personal experience it has been noticed that students are sometimes reluctant to complete lengthy questionnaires. As this questionnaire was to be completed at the same time as completing the application for a coach, I was anxious that the whole process was not too onerous especially as it was proposed to repeat the chosen questionnaire, post-coaching. Previous research such as Kraut, Wolfson and Rothenberg (1975) demonstrated that lengthy questionnaires result in decreasing use of extreme response categories. Johnson, Sieveking and Clanton (1974) also noted fewer responses to open questions when placed at the end of a lengthy questionnaire. Herzog and Bachman (1981) also suggested that lengthy questionnaires with similar response scales result in respondent bias. In longer questionnaires it was found that a similar response scale is selected, in particular towards the end of the survey. In view of these findings a shorter, more appropriate questionnaire such as the ABC scale was deemed to be the most fitting to utilise within this study.

These baseline data were collected both prior to the coaching intervention that indicated the student's levels of confidence in their academic behaviours and then repeated again post-coaching. A total of 65 sets of pre and post-coaching questionnaires were collected and statistical calculations made to determine any distance travelled.

In addition to this questionnaire, coachee applicants were asked supplementary questions about the subject area/topics for which they would like coaching support. This helped not only with the matching process but also provided data on trends in the perceived needs of the students. This was later compared to reflections on the quality of the support received from their coach in each of these areas.

Coaching Intervention

Once the pre-coaching data was collected, those who elected to have the coaching were matched with a coach of their own choosing by one of the case study institutions project coordinators. Depending on when or how early the coachees applied, they were able to have a maximum of 12 weeks of coaching. This normally comprised of weekly, one hour sessions. Just two students commenced coaching early in January 2014 with a further 59 commencing in February whilst another 76 students starting in March. 13 students commenced coaching in April.

So as not to have any influence on the participants when it came to the later focus groups and interviews, as had been agreed with the ethics committees, I did not conduct any of the support workshops that were delivered for the coaches. Neither did I become involved in the matching process or any subsequent issues that arose from the coaching relationships. Although data and researcher triangulation played a major role in the study to validate findings, as part of my own reflexivity, I attempted to view my role of as more of a witness than author (Willig, 2008).

It is worth noting that those students who had applied for the coaching were also informed that if they declined the offer to take part in the research process it would not in any way affect their application to be coached. All students were informed that they could withdraw from the research process at any time without the need to give any explanation. Apart from recruiting participants to the control group and offering them the opportunity to change their minds and apply for a coach, no further input was required from them.

Wellington, Bathmaker, Hunt, McCulloch and Sikes (2005) ask whether people assigned to a control group miss out on anything suspected to be beneficial as being one of the ethical questions a researcher ask of themselves. Students in the control group did not receive peer coaching and may therefore be considered as being disadvantaged. This was interesting as in my 'biased' opinion I did feel that this was the case. However having ensured that participants were given every opportunity to receive the coaching should they decide to at any stage of the research process, this concern could be allayed. In addition to this it is likely that those deciding not to take up the opportunity of coaching would not have reaped as much benefit as those who actively sought it. Coaching is best delivered as a voluntary rather than mandatory intervention as defined by Huston and Weaver (2008).

Another consideration was that of participants being adversely affected by the peer coaching. I sincerely hoped that those who received the coaching would not be adversely affected. However, in the event of this occurring, it would have been essential that it was managed effectively by the provision of appropriate support. The coordinators delivering the peer coaching programme were able to monitor the coaching relationships very closely and could be relied upon to pick up on any untoward effects. Had there been any such occurrences then those involved would have been directed to an appropriate form of support freely available within the case study institution. This would have included referral to the counselling service or mental health well-being officer.

Post-Coaching Data Collection

A variety of methods were adopted to collect various forms of post-coaching data. Interviews with those who were coached as well as the peer coaches in addition to focus groups culminated in a wealth of qualitative data. The focus groups were recorded and transcribed and examples and excerpts can be found in Appendix 5.

For deeper exploration, data had also been gathered from students prior to being coached, identifying with which topics they perceived they required support. This allowed a comparison to the post-coaching data that identified with which topics they had actually received support from their coach. In addition, secondary quantitative data, in the form of module grades for both the coached and non-coached control groups, allowed comparisons to be made between the two groups. Tables showing the comparisons between the coached and the non-coached groups can be found in Chapter 6.

To determine levels of self-efficacy and confidence in their academic abilities the participants were asked to repeat the Sanders ABC questionnaire post-coaching. This allowed statistical calculations to be made, such as paired sample t-tests to comparing the pre and post-coaching data and identify any significant differences in pre and post-coaching results.

It is the practice at SE University in the peer coaching programme for coaches to provide contact logs as evidence of their coaching sessions. These are countersigned by their coachee and contain a summary of each coaching session. They detail the topics discussed, the actions and targets that were agreed and feedback given to the coachee by the coach. These contact logs were also used to provide data on the precise nature of the support given by the coach. In addition to this, coaches and coachees communicate via an ementoring platform allowing access to this communication to demonstrate the progress of the peer coaching relationships.

Secondary Data

Secondary data was collected in the form of module grades for each of the participating students following completion of the coaching. This enabled

comparisons to be made between those who received the coaching and those in the control group who did not. It also allowed comparisons and correlations to be made on any differences in the findings between the courses studied and year of study.

Working within the case study institution it may have been expected that I would have relatively easy access to student records and it being of advantage in this research. It might have been assumed that some of the ethical procedures were bypassed. However it resulted in perhaps more rigorous procedures being devised and adhered to. Whilst approval had been obtained for the study to take place by the Pro Vice Chancellor at the case study institution, accessing this secondary module grade data was problematic for a number of reasons. Whilst the importance of the findings was appreciated by those who endorsed the study, there were complications and clashes of interest between them and those responsible for data protection at the case study institution. The study required the simultaneous analysis and comparison of qualitative and the quantitative module data to take place. It was necessary to be able to match qualitative and quantitative data taken from each of the coachee participants. If a coachee had only received one single coaching session, for example, then this might be important information to know for precise comparisons and correlations to be made when exploring their module grade data. However for data protection reasons the provision of any identifiable student data was difficult to overcome for those responsible for data protection.

After much deliberation and discussion a system of transferring the data was agreed which satisfied the needs of both the study and data protection. A secure and password protected database was created containing all the pre-coaching data and each participant given a unique identifier. Fields were created for the secondary module grade data to be entered. The database was then populated by the Student Records department with the secondary module grade data with all identifying data such as names and student numbers deleted before being returned to the researcher. This allowed the participating students to remain de-identified whilst allowing the pre and post-coaching qualitative data to be matched and analysed with the module grade data.

This quantitative and the quantitized qualitative data were entered into SPSS enabling statistical calculations to be made. Checks were made on the validity of the data prior to performing the correlations and other statistical calculations.

Focus Groups

To further enhance the findings, focus groups were held with those who received the coaching. This enabled a better understanding of the coaching process and participants' perceptions of its possible impact on academic attainment. In addition to this some of the coaches too were invited to focus groups in order to describe the process and their perceptions of the impact, if any, on their allocated coachees. This also allowed comparisons to be made between the coachees' and the coaches' perceptions. In total six focus groups were held, two of these with the coaches with five and nine participants respectively. The coachee focus groups each comprised of three or four participants. This complied with the recommendation by Krueger and Casey (2015) that a minimum of three are carried out in order to collect a variety of views and opinions to compare and contrast. Focus groups are, as suggested by Krueger and Casey (2015), particularly useful when collecting data on perceptions. They were likely to draw richer data than a written questionnaire. For those participants who had not agreed to participate in a focus group or were unable to attend, the survey questionnaire was emailed instead.

Fellow researchers assisted with the focus groups which were both recorded and transcribed having gained prior consent. The interview questions were constructed to use open ended questions in order to gather the data. Data was analysed using a procedure akin to Colaizzi's (1998) seven procedural steps. Firstly some questions were asked to establish some contextual knowledge of the participants such as what course they were studying and how frequently they had met with their coach. Statements that contained text which were pertinent to the research question were highlighted in the transcripts. Meanings were extracted and themes drawn which were then grouped into categories. Different colour highlighter pens helped in this process. Whilst Colaizzi (1998) suggests that the results are shared with the participants for verification this was not practicable in this study as many of the participants had left the university by this stage. Instead each of the three researchers examined the qualitative data independently and then met to compare and merge the findings. This process served to verify the themes drawn which can be found in Chapter 5.

The two fellow researchers who assisted were project officers responsible for the delivery of the other mentoring programmes delivered at the case study institution. Having had no previous involvement with the delivery of the peer coaching programme or the participants aided me and the other researchers to facilitate an

unbiased approach to the interview schedules and interpretation of data. The researchers are both educated to master's degree level and familiar with the process of analysing qualitative data. An extract of such an example transcript with the highlighting can be found in Appendix 13.

In addition, guidelines were provided as a reminder to both researchers to conduct the focus groups with the avoidance of bias. The guidance in Appendix 6 shows how the researchers were reminded to follow up both negative and positive responses and suggests prompts to use to elicit further information.

Interviews

Semi-structured interviews were also held with 21 of the coached participants and three coaches. Although questionnaires were sent to every participant, as pointed out by Bell (2005, p157) interviews can 'yield rich material and can often put flesh on the bones of questionnaire responses'. The pre-prepared questions were first piloted with a small group of students who were not involved in the peer coaching to ensure that they were not leading, were easily understandable and were unlikely in any way to make the interviewees feel uncomfortable. Some minor amendments were made as a result of this pilot. Some examples of the pilot questionnaire feedback can be found in Appendix 8.

In addition to this, the fellow researchers who carried out some of the interviews were given the same guidance notes as a reminder to follow up both negative and positive responses and to use the same semi structured set of questions for each participant. They were also reminded to encourage honesty and openness in the replies and assure the interviewees that their responses would be de-identified and not be passed on to their coach. Although the interview structure was used as a guide, a common sense approach was used when a question had already been answered in a previous response. Participants would be reminded that they had already covered that particular question but asked if there was anything more that they wanted to add.

The questions were designed to first of all determine to what degree the participant had engaged with the coaching process. This was deemed important as some participants had received just one coaching session whilst others had very frequent contact with their coach, sometimes two or three times a week. Those who met more

frequently were generally the ones who were matched later. The form of contact made with their coach was also important to determine as this varied from formal face to face meetings to telephone calls and skype or text. When analysing the data this type of information was helpful as it sometimes impacted on the nature of the responses. An example of this was found in some participants who had wanted more frequent contact with their coach but due to time constraints and other factors it was not possible. Their responses implied that the coaching might have had more impact on their academic achievements if they had managed to meet with their coach more regularly.

The remaining questions were designed to determine whether the participants perceived to have noticed any impact from the coaching and if so in what ways. The majority of the questions were open and every participant was invited to add any additional comments or reflections at the end of the interview. Both the interview schedules and rationale for the formulation of the individual questions can be found in Appendix 7.

The data collected from the interviews was analysed in conjunction with the quantitative data which further illuminated the findings. Thematic analysis was used to explore the qualitative data in order to draw conclusions from the open questions asked. Quantitative data was given equal importance to qualitative data therefore the design could be described as QUAN + QUAL with the data being analysed concurrently.

In view of my previously discussed, possible bias it was necessary to adopt stringent measures to minimise possible misrepresentation when interpreting the qualitative data. Not only was careful consideration given to the terminology used in the interview questions but investigator triangulation as described by Guion (2002) was utilised when analysing the qualitative data. This minimised the risk as far as possible and avoided 'confirmation bias'. I may have been blind to phenomena occurring due to a focus on hypothesis testing rather than hypothesis generation.

Using a mixed methodological approach and the triangulation methods inherent in the case study approach helped to counteract any bias that I brought when researching in my own organisation. Additional methods to ensure quality were used when designing the qualitative data collection.

Interview schedules were designed to be communicative rather than elicitive in nature as indicated by Cicourel (1964). The questions were mostly open such as

'how would you describe' and 'what were the main topics covered in the coaching sessions?' Answers were followed up by further prompts such as, 'in what way', 'tell me more about' or 'can you give me an example?' Care was also taken to ensure that the schedules did not impose particular ways of understanding reality upon the participants' responses, such as 'what do you perceive to be a good grade?' Avoidance of any misinterpretation was also averted by the use of investigator triangulation as described by Guion (2002). The same fellow researchers used for the focus groups also assisted in the interview process minimising the risk of misinterpretation or bias.

The mixed methodological approach used combining quantitative data on attained module grades for comparison with the qualitative data collected provided a deeper insight of the process. Exploration was made on how the two data sets either complemented or contradicted each other. The qualitative data played an important part in gaining a deeper insight into the findings. This mixed methodology also allowed me to compare the qualitative and quantitative evidence to further validate my finding. Chapter 5 clearly presents the qualitative data whilst Chapter 6 shows the quantitative findings. In Chapter 7 the commonalities and differences found in the two different data types are reviewed. Alvesson and Skoldberg (2000, p51) state that 'it is not methods but ontology and epistemology that are the determinants of good social science'. I believe that for this particular study a combination of the two methods as discussed by Bourdieu and Wacquant (1992) was the best approach.

Interpretation of the qualitative data was in particular where I needed to be most aware of my role as a pragmatic reflexive researcher. Great care was taken in phrasing the questions for both the survey questionnaire and the semi-structured interviews to ensure that they were not leading. I also gave consideration to the way in which both interviews and focus groups were conducted. All participants were advised before commencing the interview or focus group that honesty in their answers was essential and that both negative and positive aspects were of equal importance.

As an interviewer/researcher, this is where any differing opinions in interpretation are most likely to occur. There was also the danger that participants might answer questions about their experiences of the coaching process in a favourable way. All coachees were therefore duly reminded that their answers would not be revealed to their coach. In addition they were reassured that anything reported or quoted as part of the thesis would be done in such a way as to ensure that it was de-identified.

Other measures taken to counteract the possible inclination to answer favourably included the option to anonymise questionnaires and to assure participants that their honest responses were required in order to conduct the research accurately prior to starting the process. Having some interviews conducted by an independent assistant, also allowed participants to speak more freely. Steier (1995, p43) however states that 'ironically some of the most interesting data emerge when the interview is over, when I am no longer a researcher'. It may be that the interviewee feels more relaxed when they feel the interview process is completed and therefore speak more openly. It would however have been unethical if data given after the interview had ended were included in the research as theoretically the participant would not have given their permission for this.

This phenomenon did actually occur when conducting a focus group with two of the coachees. These sessions were audio recorded, having obtained prior permission to do so, but two students in particular were very conscious of this and gave relatively brief answers to the questions posed. It was only after the recorder was turned off that they started to speak more openly about their experiences. Not wanting to lose this valuable data and insight but being aware that it would be unethical to use it within the thesis an ethical resolution was found and applied. The two students were asked to complete a written questionnaire using the same questions as used in the focus group. Both were happy to do so and included much of the data content that was omitted in the original focus group.

Survey Questionnaires

In order to ensure that I adhered to good research practice, I asked myself the ethical questions recommended by Wellington *et al.* (2005). I intended to ask the participants questions regarding their perception of how well they were managing the requirements of their course and how confident they were that they would achieve a 'good' grade. Whilst I may feel, with my background of encouraging openness and honesty as a key factor, that these types of questions are acceptable it may have been that students perceived this differently. By piloting the proposed semi structured interview questionnaire with some volunteer students, I was able to check that students were not made to feel uncomfortable and were therefore more likely to answer this type of question honestly. The feedback received from 11 students who trialled the pilot questionnaire confirmed that the questions were not considered to

be too intrusive. Appendix 8 shows some examples of the feedback obtained through the pilot survey.

As it was not feasible within the time constraints of the study to conduct interviews and focus groups with every participant (nor did all the participants consent to this) the alternative method of survey questionnaire was also used. The survey questionnaire was emailed to every coaching participant in addition to the usual feedback form that is routinely used to evaluate the mentoring and coaching programmes delivered at SE University.

This survey also contained the repeated Sander and Sanders (2009) ABC questionnaire as well as additional questions similar to the ones utilised in the focus groups and interviews. The data collected in this survey sought to collect more informational data such as the actual topics that they had discussed with their coach as well as their more subjective experiences. It sought to determine the different aspects of support that they had received and which they had found most or least valuable.

As many of the items in this questionnaire used a Likert scale, the data could be quantized as described by Tashakkori and Teddlie (1998) allowing them to be subjected to statistical analysis. Appendix 9 shows the rationale behind the construction of the individual survey questions. The qualitative data gained from the open questions was analysed using the same thematic processes as the interview and focus group data.

Since the study was initially conducted within my own organisation a particularly high degree of reflexivity was necessary. My role for over a decade had been to develop and deliver these mentoring and coaching programmes to raise the aspirations and educational attainment of both pupils in schools and higher education students. These programmes had in the main been successful in achieving these aims and attracted a sizeable amount of funding. A high proportion of the mentoring and coaching programmes were funded by the case study institution as indeed was my own role. This brought with it the inevitable burden of pressure for the findings of the research to demonstrate favourable results in improving academic attainment. Indeed, I may have felt disappointed if this had not turned out to be the case. I was fully aware at the outset that I brought a strong belief that peer coaching would result in improved academic attainment. However as a pragmatist I was keen to explore any correlation in the peer coaching and academic attainment and identify a path or

sequence of actions to determine effective practice. As argued by Unleur (2012) there are both disadvantages and advantages to being an insider researcher. When embarking on this study these advantages, such as an understanding of the case study site, made access to the participants less problematic. However data collection was conducted as an external researcher after leaving my organisational role at SE University. Being able to conduct the data analysis as an external researcher relieved me of the political pressures and status within the case study institution. However as a continued practitioner of coaching and mentoring it would have likely still have proved disappointing for the findings to have demonstrated no impact and so it was still necessary to maintain an awareness of possible bias and take steps to minimise it. I was also not subject to some of the more expected of the advantages of being an insider researcher described by Unleur (2012) such as easier access to data. Becoming an external researcher at the data analysis stage demanded more stringent procedures to be in place for the transfer of student module grade data.

Presentation of Findings

As there was a large quantity of quantitative data involved in this research resulting in a great deal of statistical information, the findings are presented with the use of charts and tables in chapters 5 and 6 for ease of interpretation. The tables and charts depict the comparison of grades between those who were coached and the control group as well as comparing the difference in impact between different groups of students. Statistical calculations were conducted such as paired sample t-tests to show comparisons between individual participants pre and post-coaching scores. Independent t-tests were also conducted to compare the academic grades of the coached group compared to the non-coaching, control group.

Correlations showing relationships between different aspects of the peer coaching are shown such as frequency of meetings and benefits in certain areas of performance. The results between the different academic schools are also explored as well as any difference in attainment between other factors such as gender, home or International students.

The themed qualitative data is used to enlighten the quantitative data in an attempt to explain the findings and add meaning. The validity of the quantitative data is shown statistically to demonstrate the degree of reliability that can be drawn from the conclusions.

The findings will aid other higher education institutions (as well as other sectors) who may be considering peer coaching as a means of raising academic attainment or to inform their practice. It is demonstrated where there is a high degree of transferability for similar organisations and where there is more room for doubt or wider interpretation. There are also further recommendations for research into coaching support for specific groups to raise attainment such as gender, certain ethnic groups, disability or mature students.

CHAPTER 4

The Peer Coaching Process

This chapter describes the peer coaching process in detail. It first provides an overview of the coaching programme and then illustrates the coaching process told through individual case stories that demonstrate the peer coaching practice at SE University. They highlight the nature of the discussions that took place between the coaches and the coachees. The case stories evidence the academic nature of the support as well as the more social and emotional aspects of the communication. The peer coaching programme at SE University is closely monitored allowing the study to benefit from the usual monitoring processes in place such as the provision of coach contact logs. It is these contact logs that are used to highlight the coaching process within the case stories in addition to the pre and post questionnaires completed by the participants.

Overview of the Coaching Programme

The coaching intervention for the vast majority of students involved in this research commenced during semester B in March 2014, a total of 76 students during this period. Just two students commenced the coaching earlier, in January 2014 at the end of semester A with another 59 embarking on the coaching during February 2014. A remaining 13 students did not commence coaching until April. Offering the peer coaching at this time gave the students time to consider some of their early semester A coursework grades and recognise that they were perhaps not performing as well as they expected or wished to. The coaching intervention was offered for a maximum of 12 weeks. However those starting in March and April 2014 (89 students) were less likely to have sufficient time for 12 coaching sessions before exams in May 2014. It is known from the contact logs that were provided by the coaches that some of the coaches did continue to support their coachee until re-sits if they had failed an exam. However more detailed data is not available, as not all coaches provided a full set of contact records.

An ementoring system, through which coach and coachee communicated, allowed the email communication to be closely monitored. In total 3359 emails were exchanged between the coaches and their coachees making the average number of emails exchanged per pair, 22. However this varied widely between the coaching pairs with 139 being the largest number of email exchanges recorded between one coaching pair during the 12 week period.

In addition to emails, face to face meetings also took place between coaches and coachees but were harder to monitor, relying on participants to provide contact records. A total of 273 meetings were documented in this way but the coaching meetings were estimated to be widely under-reported. A calculation was made to determine the frequency of the meetings from the contact logs provided which was found to be on average, five coaching sessions per coach and coachee matched. However this varied between just two meetings and twelve. A number of coaches provided evidence of more than 10 meetings with just one coachee. It is worth noting that many of the participants used text, telephone or skype in addition to emailing and face to face meetings which again could not be monitored for frequency. It can be important to measure frequency of contact as this can sometimes be an indication of engagement with the programme. Rodger and Tremblay (2003) noted a relationship between participation levels and impact.

Whilst there are some gaps in the data evidencing the exact degree of communication between coaches and coachees, it is apparent from what is available that the communication could be termed as reasonably active. In some cases, as was reported in the focus groups, as many as three meetings in one week had taken place between coach and coachee, demonstrating an intensity of peer coaching engagement. The following three case stories used as examples have been taken from a total of 59 sets of contact logs collected from the coaches. They were selected as examples of the coaching relationships at SE University and because the participants had provided complete sets of data such as contact log and questionnaires. The names of all the participants have been changed to protect the anonymity of the participants.

Individual Case Stories

The following individual case stories demonstrate the coaching process from initial student application to undertake coaching. They illustrate the nature of the coaching practice and content of the coaching sessions. Coaches are required to record on contact logs an outline of the coaching sessions, noting the topics discussed and the actions to be taken, in collaboration with the coachee. The contact logs also allow for any feedback to be recorded on previously agreed actions and set goals. This allows the progression of the coachee to be explored further and highlights the manner in which the peer coaching is conducted. As had previously been identified in the

review of the literature, the precise definition of the coaching intervention in many previous studies had been omitted or had been subject to interpretation. D'Abate, Eddy and Tannenbaum (2003) had called for a framework to clarify the precise definition of mentoring or coaching. This study does clearly outline the nature of the peer coaching process at SE University told through these individual case stories.

Additionally, having access to the contact logs and with all the email exchanges being recorded via the 'ementoring platform' it allowed access to the communication taking place between the coach and coachee. The three anonymised example case stories show the journey of each student as they applied for peer coaching, detailing their pre-coaching perception as well as the final outcome in their module grades and post-coaching perceptions. Extracts from the ementoring platform as well as the contact logs are provided in addition to citations taken from coach and coachee questionnaires and focus groups.

Case Story 1 – Elizabeth and Emily

Introduction - Case Story 1

Elizabeth, was a 21 year old Bachelor of Education Honours (Primary) student at the time of applying for a coach. She was in her 2nd year of study and a home student. She applied for coaching in February 2014 having been recommended by a tutor. On her coachee application form she requested to work with a coach who was 'non-judgemental' and felt that she would benefit from 'getting her confidence back and motivation to carry on with the course'.

The topics that Elizabeth selected for with from her allocated coach were with organisational skills, referencing, essay writing, time management, motivation as well as placements/work experience.

Pre-coaching, Elizabeth's scores demonstrated that she was not feeling terribly confident that she would be able to complete her degree, rating this question a 4 on a 7 point Likert scale. She stated that she perceived a 'good' degree to be a 2:1 but surprisingly indicated that she expected to achieve a 2:1 that year despite this stated lack of confidence to complete her studies.

When asked to rate her satisfaction with her academic performance and how she felt she was currently managing her studies, Elizabeth rated both of these a 1 on a 7

point Likert scale. She rated her overall satisfaction with student life a 2 on the same 7 point scale. These low scores would indicate that Elizabeth was not particularly pleased with her academic progress at the time of applying for a peer coach. It is interesting however to note that Elizabeth felt that a 2:1 was a 'good' grade pre-coaching and expected to achieve this despite giving the lowest score of 1 for satisfaction with academic progress and for managing the requirements of her course.

Elizabeth also completed the Sander and Sanders (2009) ABC questionnaire both pre and post-coaching which is a 5 point Likert scale. Pre-coaching, the scores mirrored her coachee application demonstrating low levels of confidence particularly for motivation, writing in an appropriate academic writing style, managing coursework to meet deadlines and asking lecturers questions during a lecture. The mean score, pre-coaching for all 24 items was just 2.67 as can be seen in Appendix 10.

The Coaching Process - Case Story 1

Elizabeth was matched with Emily, a final year Education Studies and Early Years student who was an experienced coach. Emily had successfully trained and worked as a coach in 2012/13, whilst she was in her second year of study. Elizabeth was given a choice of whom she wanted to work with at an induction session, selecting from coach profiles and on the 26th February was matched and put in touch with Emily.

Emily first met with Elizabeth on the 6th March. As can be seen from the contact logs written by Emily and countersigned by Elizabeth (in Appendix 11) they discussed the areas that were of concern. These included support for assignment writing including planning, structure, analysis and referencing. Being an experienced coach, Emily had already set Elizabeth the task of reading over a plan and one essay for the next session.

The sessions continued regularly throughout March, April and May with the pair meeting on a weekly to fortnightly basis on eight occasions. As can be seen from the following extracts from the contact records, much time in the coaching sessions was spent on essay planning and looking at feedback. The progression made is clear from the earlier to later sessions:

6th March – ‘Coachee completed a ‘review of module’ sheet and we discussed areas for improvement’

3rd April – ‘Coachee to decide which parts (of essay) to take out of lesson plan as both agreed there is too much’

16th May – ‘to read and discuss final essay – very little feedback given as a great improvement in her writing’

In addition to the meetings, the ementoring platform recorded a total of 79 email exchanges. Emily had sent Elizabeth 42 emails during the whole period. The following email extracts in Box 4.1 demonstrate the nature of the coaching which remained assignment focused throughout.

*‘Hey Emily,
Sorry to bother you, but i was wondering if you could have a look at my lesson plan. I've sort of finished it but i still feel unsure about in terms of if my questionings are a bit too much or there are too many activities going on. Also, ignore the fact that my middle section looks bare. I'm still thinking of stuff to add to it. If you have any suggestions feel free to add to it.*

Elizabeth’

*‘Hi Elizabeth, How are you? I will have a look at your lesson plan later on today and give you some feedback. I am sure you have done a great job
Emily’*

‘Hi Elizabeth

*I have attached your lesson plan. well done :) I have highlighted changes in red. However overall a great plan. Please read my feedback at the bottom.
Emily’*

Hey Emily, Sorry I didn't get a chance to reply to your previous email. I've literally been losing track of time and days...but yeh...thanks so much for your help and feedback :)It's about an hour long lesson and I'm slightly thinking what I have set out for the children to do is a bit too much so i might make some changes about that. Is Tuesday at 1:30 still alright for us to meet up about the essay?

Thanks once again for the feedback. Enjoy the rest of your weekend. Elizabeth

‘Hi Emily,

Hope you are well? Just wanted to let you know that i collected my results and i got a 2:1, my mark was 65. I'm really happy and extremely grateful for all your help :)

Box 4.1 showing email extracts from Emily and Elizabeth – Case Story 1

It can be seen from these email exchanges that whilst the communication remained focused on the academic tasks in hand, the discussions took place in quite a casual manner. The praise included in the feedback to Elizabeth when giving comments on her lesson plans as well as the words of encouragement are likely to have had a positive effect. It is clear that the support given by Emily is appreciated by Elizabeth.

Post-Coaching Perceptions - Case Story 1

Post-coaching Elizabeth was asked the same questions as she was asked pre-coaching. Her perception of what would be considered a 'good' grade had not changed and she still considered a 2:1 as being 'good'. What appeared to have changed considerably was the confidence that she had in receiving a good grade. This had risen from a score of 1, pre-coaching to 5 (on a 7 point Likert scale). Elizabeth still expected to achieve an overall 2:1 but her satisfaction with her academic progress had also risen from 1, pre-coaching to 5, post-coaching. Additionally where she had scored a 1, pre-coaching for 'managing the requirements of her course', Elizabeth had scored this a 5, post-coaching. Elizabeth's overall satisfaction with student life had also risen from her pre-coaching scores of a 2 to a 4 (on the 7 point Likert scale).

Elizabeth's average scores had also risen from 2.67 to 3.96 on the Sander and Sanders (2009) ABC questionnaire. The areas where the scores had risen most sharply (3 whole points on the Likert scale) were:

- Manage workload to meet course deadlines
- Ask lecturers questions about the material they are teaching, during a lecture
- Write in an appropriate academic style
- Produce your best work in coursework assignments

Appendix 10 shows the full pre and post scores provided. As part of the feedback given post-coaching, Elizabeth stated that she had received support with essays and academic writing, structuring of essays, referencing in essays and how to prepare writing assignments and *'how to go about reading them'*.

She reported that the most helpful aspect of the coaching was *'Helping me with academic writing. Actually sitting with me and going through my essays and discussing how I could change or improve them'*.

In rating the help that she had received with individual topics, Elizabeth had scored all topics with a 7 on the Likert scale (the top score).

Emily was one of the coaches who took part in one of the coach focus group discussions. Emily had also recognised increased confidence in Elizabeth as well as her other coachee. *'I feel this had an impact on their confidence as academic writers, their time management, their planning for their essays and their ability to work at a higher level through improved motivation'*.

Emily also reported a positive effect for herself from acting as a peer coach *'I have had to be more organised in order to support my coachees and carry on effectively with my studies. I feel I have become more organised in my own assignments as a result'*.

Module Grades – Case Story 1

Whilst the Sander and Sanders (2009) ABC questionnaire results and qualitative data presented from both the coachee and the coach would indicate a significant improvement in academic attainment, the module grades for Elizabeth do not necessarily support an equally powerful impact. The semester A grades for Elizabeth ranged from 42% to 65% comprising of four modules giving her an average grade of 51.75. Elizabeth completed just two semester B modules scoring 45% and 68% and passed a school placement module that is ungraded and is awarded either a pass or fail. The semester B average grade was calculated to be 56.5. Whilst the average grade was higher in semester B, the lower grade of 45% was lower than three of her semester A grades.

Emily was an experienced coach and from the communication it can be seen that she offered Elizabeth a balance between encouragement, feedback and action planning which would be considered good coaching practice. The peer coaching support appeared to be well-received although the actual overall academic grades for the semester B modules did not show much improvement. It should be noted however in one semester B module Elizabeth achieved a higher grade than she had done for any of her previous modules. The qualitative data in combination with the Sander ABC scores do indicate increased confidence and satisfaction with academic progress. There does appear to have been impact on both academic attainment as

well as increased levels of academic confidence as seen by the Sander and Sanders (2009) ABC results.

Case Story 2 – Tatiana and Lydia

Introduction - Case Story 2

Tatiana was a 2nd year BSc Biomedical Science, home student. She was aged 20 in March 2014, at the time of applying for a coach after hearing about it from a friend. She was matched on the same day after selecting Lydia, a final year Biomedical Science student, as her preferred coach. Lydia was a new coach having only undertaken the training that academic year.

At the time of her application, Tatiana had failed to reach the required pass mark for two semester A exams that she was due to retake. Upon her application, Tatiana requested a coach who was *'motivated and driven, attentive, a good problem solver and supportive'*. She perceived that she would benefit from coaching to *'make improvements to her current efforts'* and in other areas such as *'interpersonal skills'*.

Tatiana requested help with her presentation and revision skills, essay writing, time management, making the most of University and with exam preparation.

Pre-coaching, Tatiana appeared relatively confident that she would complete her studies scoring this question a 5 on a 7 point Likert scale. She stated that she perceived a 2:1 to be a 'good' grade although only expected to achieve a 2:2 that year. Tatiana was also reasonably satisfied with her academic progress and her management of her course requirements rating these both a 4 on a 7 point Likert scale. She rated her overall satisfaction with student life slightly higher, as a 5 on the Likert scale. Tatiana met with Lydia on a weekly, sometimes twice weekly basis as can be seen from the contact logs example in Appendix 12. They also exchanged a total of 9 emails over the course of the coaching relationship.

The Coaching Process – Case story 2

After the initial induction process and selecting her preferred coach, Tatiana was put in touch with Lydia who made the first contact as can be seen from the email excerpts below in Box 4.2.

'Hi Tatiana

My name is Lydia, I have been notified by the Peer Coaching team that I have been selected to work with you.

I am in my final year of my biomedical science degree, I have been told you are in your 2nd year of the same subject. I hope you are enjoying it so far. I have really enjoyed my 3 years here even though final year can be tough.

I am generally free on Wednesday & Thursday afternoons and Fridays Just let me know what time suits you best.

I'll be looking forward to hearing from you.

*Best wishes
Lydia'*

'Hi Lydia

Thank you for your email. I look forward to working with you and benefiting from your guidance.

With that I mind, I would like to propose an initial meeting this Friday (28th March) afternoon/evening or sometime next week before Friday 4th April, so that we can introduce ourselves and also perhaps discuss the different areas I need guidance in.

Look forward to hearing from you

Kind Regards

Tatiana'

Box 4.2 Email extracts from Tatiana and Lydia – Case Study 2

After an initial meeting on the 28th March where the ground rules were covered and noted in the contact log, the main issues were discussed and agreement as to what actions needed to be taken.

'Went through main problem: essay writing and exam preparation'

'Coachee has agreed to review what type of learner she is and bring the module guides to the next session'

The contact logs clearly demonstrate the way in which Lydia guided her coachee in these identified problem areas:

3/4/2014 *'The coursework and exam criteria was reviewed for each module', 'we were able to look at what the student has to aim for', 'the coachee to do a plan first before the essay'*

16/4/2014 *'From the previous session the coachee was asked to go away and look at some references for an assignment'*

23/4/2014 *'the coachee expressed a need to create a revision timetable', 'we looked at what she needed to cover and the time she has. Coachee has made a check list which she will tick off when she has finished the topics'*

27/4/2014 *'I emailed the coachee a few papers which I had that can help her with revision for a particular module'*

The majority of the communication between Tatiana and Lydia was face to face although there was some additional email communication too. The email in this coaching relationship was used more as a follow up to the face to face sessions which can be seen from the following extracts in Box 4.3.

'Hi Tats ,

Hope you are keeping well and you have enjoyed your Easter break. Looking forward to seeing you next week for a catch up session. I hope our last few meetings have been helpful to you and your revision is going well. Please do let me know if you are struggling with any topics. Good luck with the exams. Best wishes Lydia'

'Hi Lydia

I hope you had a great Easter break, I enjoyed mine thank you. Yes the last few sessions were helpful. I will bring all my queries to you when I see you this week. Good luck with your exams also! Best wishes Tats'

'Hi Tats,

I am just emailing you with some of the exams papers for the MCB module like you had requested. Hope they help with the revision. Best wishes, Lydia'

'Hey Lydia Apologies this message is coming to you late. However I am just responding back to you to give you a massive THANK YOU for the help.(For the meetings, the resources and advice). I really hope your exams went well and you have a wonderful summer holiday!

It has been a pleasure having a hard working peer coach like you and I wish you all the best in the future! Best Wishes Tats'

Box 4.3 showing email extracts from Tatiana and Lydia – Case Story 2

Post-Coaching Perceptions – Case Story 2

Tatiana appeared to be generally pleased with the coaching that she received as can be seen from her correspondence with her coach. In addition to this she completed a survey questionnaire, post-coaching stating that she had received support and *‘advice with final year: what to expect and how to deal with work load + exam preparation and final project’*. The fact that Tatiana reported receiving ‘advice’ from her coach could be an indication that Lydia was not practicing coaching as directed on the training (which encouraged a non-directive approach). It could also be accounted for by the fact that Lydia was new to the coaching role with Tatiana being one of her first coachees.

She felt that the most useful aspect of the coaching was *‘Getting an insight and someone else’s interpretation of work that you have done’*

Tatiana stated that *‘it’s very useful to have someone who has experienced what you are going through (academically): to support you with your academics. They can give you extra resources to aid with work and exams including additional interpretation of how to carry out the tasks’*

She scored the individual topics for which she received help as follows:

TOPIC	Score (Likert scale 1-7 with 7 being extremely helpful)
Organisational Skills	5
Presentation Skills	4
Revision Skills	6
Referencing Skills	5
Essay Writing Skills	7
Time Management	5
Motivation	6
Placements/work experience	5
Making the most of University	7
Balancing work/study	5
Exam Preparation	7
Integrating	4
Coursework/help with specific modules	6

Interestingly these scores relate very well to the topics with which she specifically requested help pre-coaching, with the exception of ‘presentation skills’. The areas that Tatiana had indicated pre-coaching where she needed help were the ones that scored the highest as being most helpful, post-coaching. There is however no

reference at all on the contact logs relating to discussions on 'giving presentations'. As can be seen from the contact logs, the discussions focused almost entirely on exam preparation, essay writing, referencing and specific assignments.

Module Grades – Case Story 2

Tatiana perceived benefits from the coaching sessions as can be seen from her qualitative feedback. In addition her exam grades for both the previously failed semester A modules also improved slightly in the retakes, increasing from 59% to 65% and 36% to 38% respectively. However Tatiana did not achieve the required pass mark for two semester B assignments. Her overall average grades however rose from 50.33% to 51.67%.

Lydia, Tatiana's coach, was one of the participants who took part in a focus group discussion. She expressed some difficulties from taking part as a coach. She reported feeling '*a little overwhelmed*' as some of the modules had changed and admitted to '*struggling a little bit myself*'. She explained that she sometimes found her coachee '*quite demanding in a way*' but put that down to '*cultural differences*' and '*having to take that into account*'.

Lydia however did recognise that she too had gained from the experience. '*Peer marking*' was the skill that she felt was the most useful for her as she intended to go on to a teaching career. She also felt that looking over her coachee's essays and suggesting changes helped her too although this again deviated from the peer coaching training given that suggested a less directive approach. Lydia described the coaching as being beneficial for her academically as '*it gave me a refresher of what I learned in the past as well. So it really helped me to add on the things I forgot*'. Benefit for the students offering the support has already been identified in other peer support interventions such as in mentoring (Smith, May and Burke, 2007). It had also been referred to in peer tutoring and reported by Whitman (1988), Hartman (1990) and Goodlad (1998) as reinforcing subject knowledge in the peer tutor. Van Nieuwerburgh and Tong (2012) had suggested that further research was conducted within a coaching context on this topic.

As has been seen from the previous case story, the impact was perceived by the coachee to have been useful. In particular this appeared to be with essay writing, exam preparation and making the most of University which were amongst Tatiana's pre-coaching requested topics for support. The peer coaching also appears to have

been instrumental in Tatiana improving her marks on at least one of the previously failed exams.

Case Story 3 – Deetah and Sandra

Introduction – Case Story 3

Deetah was aged 19 at the time of applying for a peer coach. She was an international student in her first year of studying a Law LLB degree programme. Deetah applied for the peer coaching on the 7th February 2014 requesting a *‘reliable’* mentor. This confusion in terms may be due to both coaching and mentoring being offered at the case study institution or a general misunderstanding of the two interventions. Her aims for the peer coaching were to *‘add to her quest for more knowledge from a more experienced person’*.

On her application Deetah had requested support in for organisational, presentation and revision skills as well as with referencing and essay writing. She had also requested support with placements/work experience, making the most of University opportunities and exam preparation. The only three available topics that she had not requested help with were integrating, time management and with specific coursework or modules.

Pre-coaching Deetah had rated her confidence with completing her degree a 7 which was the top of the Likert scale. She considered that a 1st class degree was a ‘good’ grade but expected to achieve a 2:1 that year. Despite this confidence in completing her studies she rated her satisfaction with her academic performance a 1 on the 7 point Likert scale and scored herself a 2 (on the same scale) as regards ‘managing the requirements of her course’. Despite this apparent dissatisfaction with her academic performance, Deetah rated her overall satisfaction with student life, a 5 on the 7 point Likert scale.

The Coaching Process – Case Story 3

Deetah was matched with Sandra, a second year Law LLB student, a new coach who had only undertaken the coach training that year. Sandra sent an introductory

email as can be seen in Box 4.4 to initiate the coaching relationship from which the following extract is taken.

Hello Deetah,

I am Sandra and I have been lucky enough to be your coach :). I am a second year law student and enjoying every minute. I have been told that you are a first year, firstly well done, it is such a big change and secondly, you will have so much fun getting to know and understand the university.

I don't live on campus, I commute , However, I am flexible and in uni at least 3 days a week. That's enough about me, tell me something about you :).

I am in on Monday, Tuesday and Friday all day if that is any good for you?

Speak to you soon

Sandra

Hello Sandra

Oh! Good to hear from you. Will tell you more about myself on Tuesday. When is the ideal time for us to meet?

Deetah

Box 4.4 showing email extracts from Deetah and Sandra – Case Story 3

Deetah and Sandra met on seven occasions and emailed regularly throughout their coaching relationship although the email contact was used mainly to confirm pending meetings etc. The email extracts in Box 4.5 below do however demonstrate a good working relationship and relay the motivation that was offered by Sandra and the apparent appreciation for the support from Deetah.

Good morning Deetah,

*I am back in the country, I had a wonderful time in Spain and didn't want to come back lol. When would you like to meet up again, we can go through an exam revision timetable with you and maybe you can show me what you have done so far for your presentation :). Let me know what suits you.
Speak to you soon :) Sandra*

Hi I hope you are well.

*This is a message to wish you the best of luck in your exams and a big well done for getting this far and I hope you have enjoyed every minute.
I will always be on the end of this email or on the end of the phone.
I look forward to seeing you next year if you need me :).
Speak to you soon*

Sandra :)

Hello Deetah

Do you want my law of evidence module guide? If so I can give you that today but I would like to keep the others just until I get my results. Is that ok?

Sandra

Hello Sandra

Yea! First year was good anyways if not for the blunders I made. Waiting for my overall result, then I would thank God the more. Hope you're exams were all great? How about the module guide because I would like to start studying from June to September? I do not mind coming over to you to pick them up if you do not mind. Thank you so much for your support and kindness

Hello Sandra, thank you once again for sending the module guides. Is it possible for you to send the questions of the course works that you did please, so i can start doing them now just to get acquainted with them since i am going to do 5 modules, i really would want to ease the pressure now. Thank you so very much

Box 4.5 showing further email extracts from Deetah and Sandra – Case Story 3

The following extracts from the contact logs provided by Sandra show the progression and the nature of the support offered by Sandra to Deetah

11/2/14 'We have got to the root of why she isn't achieving to a standard that she wants to be at. We have decided to meet again on Friday so we can sit down together and go through her coursework. She is also in need of some help with referencing. In the meantime she is going to get her timetable and try to manage her time'.

In this first extract it is apparent that Sandra spent time identifying with Deetah the areas for improvement and started to plan how to address some of the identified issues.

14/2/14 'We met up and went through her coursework together. I was able to help with structure but can't help her with content because it was all personal experiences and feelings'.

17/2/14 'We went through Deetah's final piece of coursework. We spoke about time management – she is currently catching up on all her KBLs and she now has a structured timetable to follow. This works well for her'.

In the last two extracts Sandra has identified a process that reportedly works well for Deetah and identifies general areas where she can offer support and those where she cannot.

28/2/14 'Deetah has been following her timetable and it has been working for her. She has caught up on all her lectures and she now feels better as she is managing her time a lot more efficiently'.

3/3/14 'Deetah has improved dramatically within her coursework. She has taken on board all feedback from tutors and applied it in her current assignment. I am off on holiday next week so we are going to meet up when I get back to discuss a revision timetable and figure out what is her best revision technique'.

The last two extracts demonstrate the efforts made by Sandra to identify precisely where Deetah has improved so as to encourage and motivate her. It is apparent that Sandra is also aware of Deetah's forthcoming needs with 'revision techniques' with impending exams and makes plans for this in subsequent sessions.

An additional aspect of the support given was with reference to the feedback given by Deetah's tutor. It is clear from the extract that Sandra has used the tutor feedback and checked that it has been incorporated into the current assignment.

24/4/14 Deetah and I met up to go over what preparation she has prepared for her presentation which is taking place on 28/3/14. We also went over how she should present herself..... We went over past exam questions together as preparation for her upcoming exam. We are meeting on Wednesday 26th so she can practice her presentation with me and I can give her some feedback.

This final extract shows how Sandra incorporates some more practical elements to the coaching sessions again showing an awareness of Deetah's forthcoming needs with the presentation that she is required to give.

These extracts demonstrate good coaching practice with Sandra responding to and adapting the sessions according to the needs of her coachee. They also demonstrate the increased motivation that Deetah has for her future studies when requesting the module guides for the following year in order that she can become acquainted with them. In the earlier contact logs it had been noted that Deetah was behind in her work and was having to catch up.

Post-coaching perceptions – Case Story 3

Post-coaching, Deetah was less confident about her ability to achieve a first class degree, scoring this a 6 (compared to a score of 7 pre-coaching). She still however perceived a 1st class degree to be a good grade. Her expectations for attainment that year had also dropped to a 2.2 having previously expected to achieve a 2:1 pre-coaching. Her satisfaction with her academic progress however had increased from a score of 1 to a score of 4, post-coaching. Her perception of 'managing the requirements of her course' had also increased from a score of 2 to a score of 7, post-coaching. Deetah's overall satisfaction with student life had also increased by two points. This more realistic viewpoint post-coaching could be quite significant. Previous studies have suggested that students with unrealistic expectations of higher education are more likely to withdraw prematurely, (Charlton, Barrow and Hornby Atkinson, 2006, Lowe and Cook, 2003 and Yorke, 2002). Whilst Deetah was still not performing up to her pre-coaching, self-prescribed goal of obtaining a 2:1, she was generally more satisfied with student life and felt that she was better managing the requirements of her course. It is clear from the dialogue between Deetah and Sandra that through their communication, Deetah was more enlightened and perhaps more realistic about her course requirements.

Module Grades – Case Story 3

Deetah passed all four of her modules achieving an overall score of 53%. She reported having been supported in terms of '*coordinating my work properly*' by her coach and cited the most useful aspect of the coaching to be '*the attention given to me*'. This concurred with the contact logs that had several references to timetabling for revision and managing her time.

In a Likert scale (with 7 being the most help and 1 being the least) Deetah scored her coach, Sandra, a 7 in all topics apart from 'making the most of University opportunities' which she scored a 5. Interestingly, neither the contact logs nor the email communication made any reference to discussions on the more social aspects of University despite this being one of the requested topics for support, pre-coaching. Despite having no evidence of any discussions on this topic within the coaching sessions, Deetah still reported an increased satisfaction with student life from pre to post-coaching. It may have been that the topic was discussed but not recorded on the contact logs or it may simply be that the improved confidence with Deetah's academic progress resulted in becoming more satisfied with student life.

Summary

These case stories outline the process of the peer coaching which is typical of the peer coaching intervention at SE University. They also demonstrate that a transfer of knowledge and understanding between coach and coachee has taken place regarding course requirements and academic expectations. They have also highlighted the increased academic confidence experienced by the coachees from pre to post-coaching. In addition to this there has been shown to be a slight increase in the actual academic performance of the three coachees.

This type of awareness and improved understanding of requirements could be an important factor in academic success. In a study by Nicholson, Putwain, Connors and Hornby-Atkinson (2013) an exercise was reported to have been piloted whereby mentors give feedback to new undergraduates on the accuracy and realism of their expectations for higher education. It is hoped that this feedback process will lead to more realistic expectations and greater self-efficacy in the undergraduates although the impact of this exercise has not as yet been reported. The peer coaching in this

study will possibly have a similar effect as it has been seen from the case studies that feedback is frequently offered by the coaches to their coachees. The coaching process could therefore lead to more realistic expectations in those being coached. This mechanism for obtaining peer feedback and insight was also reported by the coachees as being a useful aspect of the peer coaching programme as will be seen in Chapter 5.

It has been recognised by Gibbs and Simpson (2004) that it is not inevitable that students will read or pay attention to feedback given. Price, Handley and Millar (2011 p879) suggest that 'the potential for feedback to enhance student learning is considerably underdeveloped'. They go on to say that engagement with feedback needs to be improved. The peer coaching in this instance has indicated to be a mechanism for achieving this.

There is also evidence that the coaching practice was in some cases more directive than was initially envisaged. Advice was reportedly given by the one of the coaches in Tatiana's case story and the contact logs suggest in some cases that coaches were quite directive in their feedback. Coaching is a skilled practise however that takes time and practice to master and for some of the students this was their first experience of coaching. It is likely that some of the coaching practice was of poorer quality whilst the students who were in their second year of coaching and attended more of the supervision workshops may have been effecting better coaching practice as defined in the training.

Whilst the case stories help to illuminate the coaching process and the practices adopted by SE University, they rely very much on self-reported data. In the following two chapters the qualitative and quantitative data are explored more fully. Chapter 5 presents the perceptions of the peer coaching on academic attainment from both the coachee and coach perspective. Chapter 6 explores and compares the module grade data collected from both the coached and the non-coached control group. Together they examine the changes found in pre and post-coaching perceptions. These chapters also explore the differences in attainment not only between the coached and the non-coached control group but also in the differences found between different groups of students. Chapter 7 compares and contrasts the findings from both the qualitative and quantitative data.

CHAPTER 5

Perceptions of Attainment Through Peer Coaching

In this chapter the analysis of the pre-coaching data from all the participants are presented together with the themes emerging from the qualitative data obtained from the students who applied for and received the peer coaching. In addition to exploring the impact on academic attainment, the research also aimed to contribute to professional knowledge regarding the practice and implementation of coaching support. This data reveals some of the processes involved within the case study institution with regards to the peer coaching programme. In this chapter the perceived impact of the coaching by the coachees is explored as well as their perceived levels of confidence in academic attainment both prior to and post-coaching. The chapter also highlights the topics for support that was given by the coaches to their coachees as well as how well it was rated by the coachees. The common themes drawn from the qualitative data are presented and compared with the data collected from the coaches in the focus groups.

The chapter has four sections: the first examines pre-coaching perceptions, the second post-coaching perceptions. The third section explores the data provided from the coachee focus groups and questionnaires whilst the last section presents the coaches' perspective.

Pre-Coaching Perceptions of Coachees and Coaches

To explore the perceived impact of the coaching intervention at SE University, it was necessary to obtain data pre and post the coaching intervention in order to determine any impact or changes in perceptions. On applying for a coach at SE University it is usual practice for students to be asked with which specific topics they are requesting support. This information not only helps with the initial matching process but in this study, it also helped to explore which particular areas for coaching support were the most frequently sought. Students are able to select from thirteen topics ranging from time management and presentation skills to exam preparation and organisational skills. These questions, having been asked pre-coaching, could provide data that could also be used to explore and compare which topics were actually discussed as part of the coaching process, post-coaching. As will be seen later in this chapter, the participants were also asked post intervention for their views as to which of these topics was perceived to be the most or least beneficial. Post-coaching it became apparent that despite requesting support in these particular

areas, the support actually received from their coach was of a different nature to the initial request.

Coaching Topic Requests

Out of 153 initial requests for coaching, the most requested area for support was with exam preparation (133 requests), with essay writing skills (110 requests) and with revision skills (100 requests). This is shown in Figure 5.1. Help with motivation also scored relatively highly (81 requests), with time management (73 requests) and with placements/work experience (72 requests) following next. The least requested help was for support with 'presentation skills' (47 requests) and 'making the most of their time at the university' (only 46 requests) and with 'integration' least requested (39 requests). These results are not surprising as the coaching intervention was offered towards the end of semester A as exams and coursework deadlines were approaching. The coaching programme was also specifically promoted as a means to improve academic attainment rather than to support social integration. To date there have been no studies that explore which topics in coaching are the most frequently requested although in the mentoring literature particularly there is information available that explores in what ways it is helpful for the recipients. For example Andrews and Clark (2011) report that mentoring supports integration which is one of the things that is of most concern to students entering higher education. Hill and Reddy (2007) also report higher levels of success for students in making the transition to university through mentoring. Coaching too has been reported by Green & Rynsaardt (2007) to facilitate increased well-being, goal-striving and resilience.

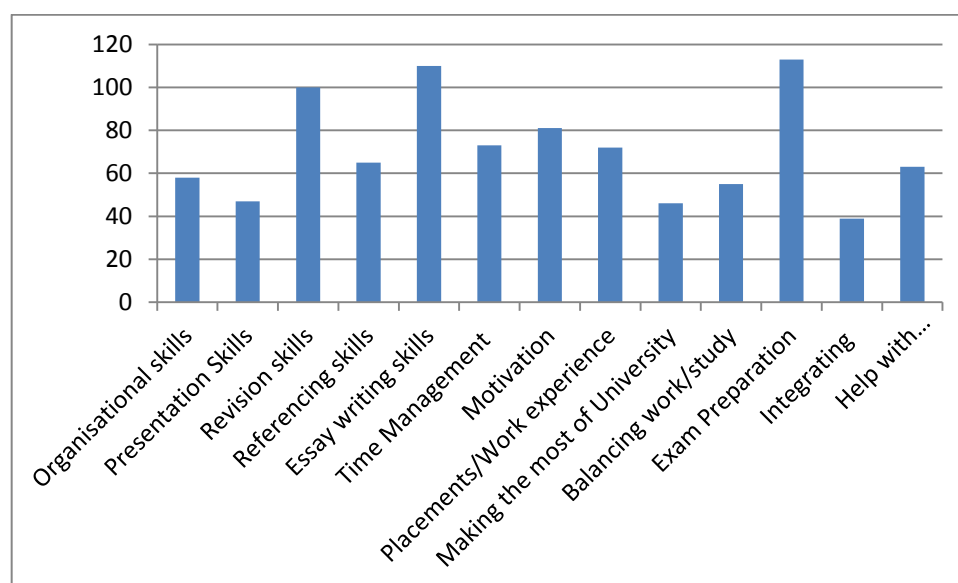


Figure 5.1 Coaching Support Requested

Students were also asked what they perceived to be a good grade as well as their confidence in their own ability to receive a good grade which is discussed later in Chapter 6. Figure 5.2 shows the distribution of pre-coaching responses.

Grade	Pass	3rd	2:2	2:1	1st
Number of Students	2	2	6	72	63

Figure 5.2 Student perceptions of a 'good grade' pre-coaching intervention

The pre-coaching questions to ascertain perceptions were useful to determine not only the student's academic goals but also their self-belief and confidence in achieving them. They also allowed for any changes in perceptions to be measured when the questions were repeated post-coaching.

Figure 5.2 shows that of the 145 students who answered this question pre-coaching, less than 7% (10 students), felt that a 2:2 or below was a good grade. Almost 50% (72 students) stated that a 1st class degree was a good grade. However, pre-coaching only 18 of the 145 students (12%) were either very confident or confident that they would receive a good grade. Another 18 students stated that were very unconfident or not confident of receiving a good grade.

Post-Coaching Perceptions

Participants were asked post-coaching to rate the helpfulness of the support received. The same Likert scale and topics were used as in the pre-coaching questionnaire the choices ranging from presentation skills to 'finding work placements'. In total 63 students responded to this post-coaching questionnaire. The thirteen topics were the same categories that the coachees had been able to select from when initially applying for a coach. The graphs in Figure 5.3 illustrate the ratings given to their coach.



Figure 5.3. Frequently Discussed & Highly Rated Support

Topic	Organisational skills	Revision skills	Essay Writing	Time Management	Motivation	Exam Preparation
Not discussed	16	15	22	11	15	12

Figure 5.a Showing the number of students and 'not discussed' topics

From this data it can be seen that generally the coaches rated the help received from their coach highly. It is noticeable that 'Integration into university life' was least discussed. As has previously been noted, the coaching took place towards the end of semester A or at the beginning of semester B and so it may be anticipated that

this would not be so much of an issue at this time. It should also be noted that the peer coaching programme was clearly marketed to students as an intervention to improve grades rather than aid social integration. The main topics discussed in the coaching sessions and the most highly rated were revision skills, exam preparation, motivation and time management.

Organisational skills

Whilst help with organisational skills was not a particularly highly requested topic for support, pre-coaching with just 39% of students requesting it, it appeared to be a topic that was discussed by many. Just 16 students who took part in the coaching and who completed a post-coaching questionnaire reported that it was 'not discussed'. It was also one of the highest scoring in the ratings with 14 respondents rating it a 7 (on a Likert scale of 1-7 with 7 being 'the most helpful' rating). 11 respondents rated it as a 6 on the Likert scale and 9 gave it a rating of 5.

Revision skills

Revision skills was one of the most requested topics for support with 100 students, (65%) requesting it pre-coaching. Only 15 students who responded post-coaching reported not to have discussed it with their coach. It was also a highly rated topic for which support had been received with 39 of the respondents rating it between a 5 and 7 on the Likert scale.

Essay writing skills

Essay writing skills was also one of the most requested topics for coaching support with 71% of students requesting it, pre-coaching, a total of 107 students. However 22 respondents reported not to have discussed it with their coach as part of the coaching support. It should be noted however that for some participants 'essay writing' would not be a particular requirement of their course. This is particularly the case for those studying engineering and physics, astronomy and maths. Despite this, 50% of the respondents rated the help that they received with their essay writing skills between a 5 and 7 on the Likert scale. One person only had rated the help that they had received in this area as being 'no help at all'.

Time Management

70 students, nearly 47% of respondents, had requested help with their time management although 15 respondents reported not to have discussed it. Again the

support for this was rated highly post-coaching with 34 of the 63 students rating it between a 5 and 7 on the Likert scale.

Motivation

Support with motivation was requested by just 52% of students although 11 of the 63 respondents had not discussed it as part of the coaching sessions. The ratings given for the support received for this are high with 44 of the 63 respondents rating it between a 5 and 7 on the Likert scale. One student had rated it as 'no help at all'.

Exam preparation

Exam preparation was a highly sought after topic for support with 108 or 72% of students requesting it, pre-coaching. It should be noted however that for some students, such as those in Education, there are no exams. Whilst 12 students reported not to have discussed it with their coach, the ratings given for this were high with 40 students rating it between a 5 and 7 on the Likert scale.

It is however interesting to note some irregularities in the trends of this pre and post-coaching data. For example whilst support with 'essay writing skills' was one of the most frequently requested topics for support it was reported that for 15% of the coaching relationships it was 'not discussed'. This could be explained by the fact that for some of the participants 'essay writing' is not required as part of their course. The calculations could also be affected by the lower number of respondents who completed a post-coaching questionnaire in addition to a pre-coaching questionnaire; just 63 participants, post-coaching compared with 150 pre-coaching.

In addition to this, support with 'time management', 'organisational skills' and 'motivation' were not amongst the most highly requested topics for support, pre-coaching. However post-coaching these areas were reported as not only the most discussed topics but also the areas where the support was rated most highly. Indeed 'motivation', as discussed later in this chapter, is one of the main benefits of the coaching stated by the coachees in the focus group and survey data collected. This data could indicate that the students are unaware of their specific needs prior to the coaching taking place. This was certainly evident from the coach feedback that is explored later in this chapter in which coaches refer to the coachees not knowing what they needed help with and having to work at drawing it out from them.

Support with Specific Coursework Modules

The chart below in Figure 5.4 shows the ratings given by the coachees for help given on specific coursework or modules. As the coaches were mainly matched with students studying the same or a similar course, a number of students who applied for coaching had requested support in a specific area or topic. This was especially true of Maths, Physics and Astronomy and Accounting and Finance students who were struggling to understand one particular module. Whilst the coaches were trained not to share their own work with coachees or write any of the coursework for the coachees, they were able to offer support and guidance. As can be seen from Figure 5.4, although this support was not sought by the majority of students, it appears to have been well received where given.

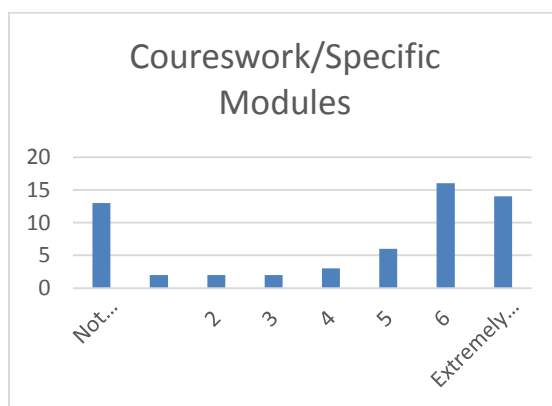


Figure 5.4 Rated Support Awarded by Coachees for support with Specific Modules/Coursework

Least Discussed Topics for Coaching Awarded by Coachees

Figure 5.5 shows the least discussed topics as part of the peer coaching process namely: 'Integration into University Life', 'Balancing work/study', 'Presentation skills', 'Placements/work experience' and 'Making the most of University'. These were also the least requested topics for support and so the results here are unsurprising. It is worth noting however that whilst they were not particularly frequently discussed as part of the peer coaching sessions, where the topics were discussed, the ratings awarded were generally quite high and therefore perceived as being very helpful.



Figure 5.5 Least Discussed Topics

For the purpose of the study, knowing the topics that the students perceived to be the ones with which they needed support and comparing it to the ones where they actually received support is helpful. It demonstrates the level of understanding and self-awareness that students have of their academic needs. This data demonstrates that in many cases whilst the students perceived, pre-coaching that they needed practical support with issues such as exam preparation and essay writing skills, in

fact it was the motivation and organisational skills that were found to be the most helpful.

Perceptions of Coaching from Focus Groups and Qualitative Survey Data

In addition to the pre and post questionnaires, qualitative data was collected from both the coachees and the coaches in the form of survey questionnaires and three focus groups. A total of 65 completed survey questionnaires were received from the coachees. In addition a further 13 students contributed to the focus groups representing a 52% response rate overall in the coached participants.

The data collected from the semi-structured interviews and focus groups questions enriched and help to elucidate the quantitative data putting the peer coaching process into context. The two sets of data were collected independently; the qualitative data being collected collected prior to the final module grades being available. This allowed the coachees to give their initial perceptions of the impact of the coaching on their academic performance prior to knowing their final year module results.

A total of four coachee focus groups were held in addition to two individual semi-structured interviews. Whilst individual interviews were not specifically planned as part of the study, they occurred due to other students failing to turn up to the focus group (leaving just one student in attendance). In one case it was due to the student arriving very late to the focus group and missing it. The student still being eager to contribute, the decision was taken to conduct the one to one interview. The focus groups were designed to elicit a greater understanding of the coaching support and aimed to establish the perceived impact of the coaching on the coachees.

The questions were designed to promote reflection of the participants on their academic performance, their confidence and how the coaching had impacted, if at all, upon these aspects. The students were aware of the purpose of the peer coaching and so in order to minimise response bias, participants were prompted to be specific about how the coaching support had impacted and exactly how that had manifested itself. For example if they stated that they were now performing better academically, they were asked how they knew this and why they felt it could be attributed to the coaching. The focus groups were recorded and the printed

transcripts were used to help identify themes and trends which were validated by a fellow researcher.

The themes that emerged from the transcripts could be grouped into the following headings:

1. Academic improvement
2. Increased confidence and motivation
3. One to one support
4. Practical support

Many of the participants were able to identify an improvement in their academic attainment which they attributed to their peer coach. Whilst the overall results and examination grades were not yet published, they had perceived this to be the case from coursework assignments. Another topic that was frequently mentioned was an increase in confidence and motivation. This corroborated directly with the post-coaching questionnaire findings reported previously. The one to one aspect of the peer coaching was also alluded to frequently as being appreciated as well as giving them an alternative to speaking to a tutor or member of staff.

In the next section four main themes from the post-coaching qualitative data are presented along with extracts taken from the focus groups and post-coaching questionnaires. The quotations illustrate the different themes presented.

Theme 1 - Academic improvement

There were a number of students who directly attributed the coaching intervention to their improved academic grades:

'Towards the end I could see it clearly that my grades, which at the start were at 2:1, went straight to a 1st which is what we aimed at achieving. So overall I would say that because of her support I am more confident in my academic work' (Law student)

And other students similarly remarked on their improvement.

'I think that the help with the essays was great and my results did improve. I saw a big..... gap in the improvement' (Life & Medical Science Student)

'The programme provided me with crucial one on one support that I desperately needed to up my grades in my second semester. The programme provided me with valuable academic writing techniques from an experienced and lovely coach, whose advice I will take forward with me. I have gained a place at Cambridge University to complete a PGCE course' (Education student)

'Without the coaching I would have got at least one grade lower' (PAM student)

'I would like to say thank you very much for allowing me to have this opportunity to be with a coach. We got along really well and it has been a blessing for me. It has definitely been a positive experience which has helped improve my grades' (Nursing student)

Many of the students made a connection between improved grades and greater academic confidence. Rather than refer to a vague notion of performing better, they were able to specifically identify the particular area where they had seen an improvement.

'I was getting a first and a high 2:1 and now I'm getting a high first' (Law student)

'As a result I got a first in my Management for Business essay' (Business School student)

'I have managed to get higher grades and I am more confident now' (Humanities student)

'It helped me boost my grades and confidence on assignment writing. It also gave me ideas on how to get better grades in the future' (Education student)

Many benefits of peer mentoring have already been identified in the literature that relates the intervention to improved student success, integration and satisfaction. The quotes above clearly illustrate the perceived impact on academic performance as seen by the coachees that has not been so evident in other mentoring studies. For peer assisted study a similar impact has been reported by Capstick, Fleming and Hurne (2004) such as an enhanced understanding of a specific course or subject matter and by Arendale (2014) although this type of academic performance data was not evident for peer coaching studies within higher education.

It is clear from these findings that the students not only perceive themselves to be performing better academically but also that they could identify exactly where those

improvements could be seen. It is also clear that these improvements are attributed either directly to their particular coach or the coaching programme.

Theme 2 - Increased Confidence and Motivation

As part of the focus groups, students were asked to identify the most beneficial aspect of the peer coaching programme. Many of the students talked with enthusiasm about improved confidence and motivation as a result of the coaching. This was also apparent from the survey questionnaire data. Whilst it was not one of the frequently requested topics for support during the coaching application process, it was one of the most widely reported benefits of the coaching process. Figure 5.6 provides evidence and shows quotes extracted from the focus groups and post-coaching questionnaires. The extracts illustrate increased confidence attributed to the support provided by the peer coaching.

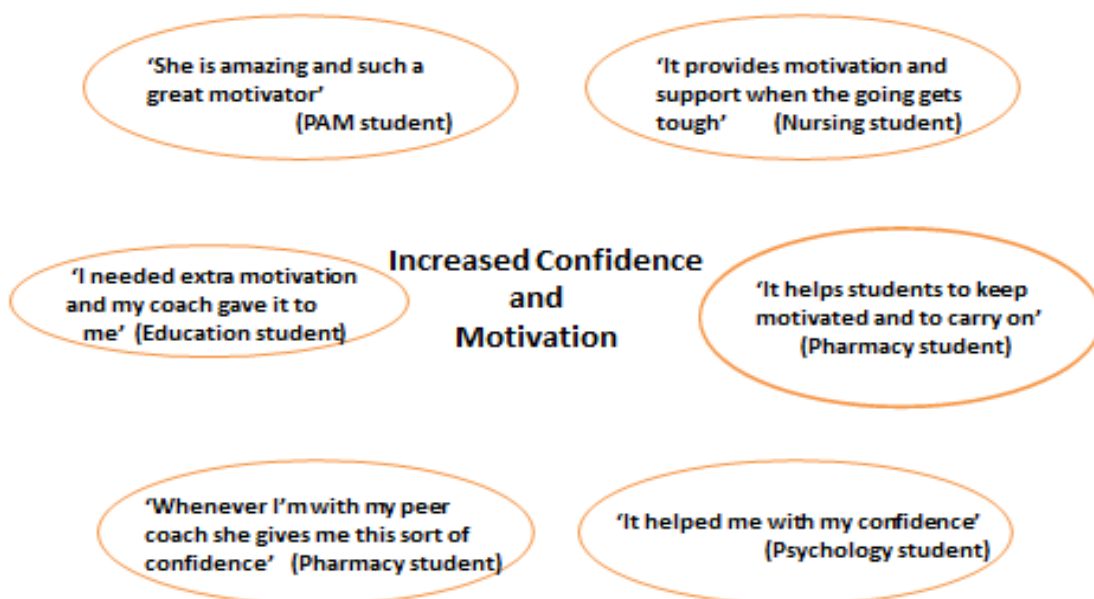


Figure 5.6 Examples of how coaching increased confidence and motivation'

This perceived increase in motivation could have a beneficial impact on higher education students. It has been found in previous studies that where students display low academic self-efficacy, they are more likely to lose motivation. Bandura (1993), for example reported that students may give up persisting with academic

tasks. Torres and Solberg (2001) and Zajacova, Lynch and Espenshade (2005) state that students might also lose motivation to spend time studying and preparing for tutorials. This evidence to suggest increased levels of motivation is therefore likely to impact positively on academic attainment and persistence.

Theme 3 – One to one support

Nineteen students commented on the beneficial nature of the one to one aspect of the programme in their post-coaching questionnaires and the preference for speaking to a peer rather than seeking help from their tutor. Figure 5.7 illustrates how and why the coachees value the one to one support provided through the peer coaching through extracts taken from the focus groups and post-coaching questionnaires.

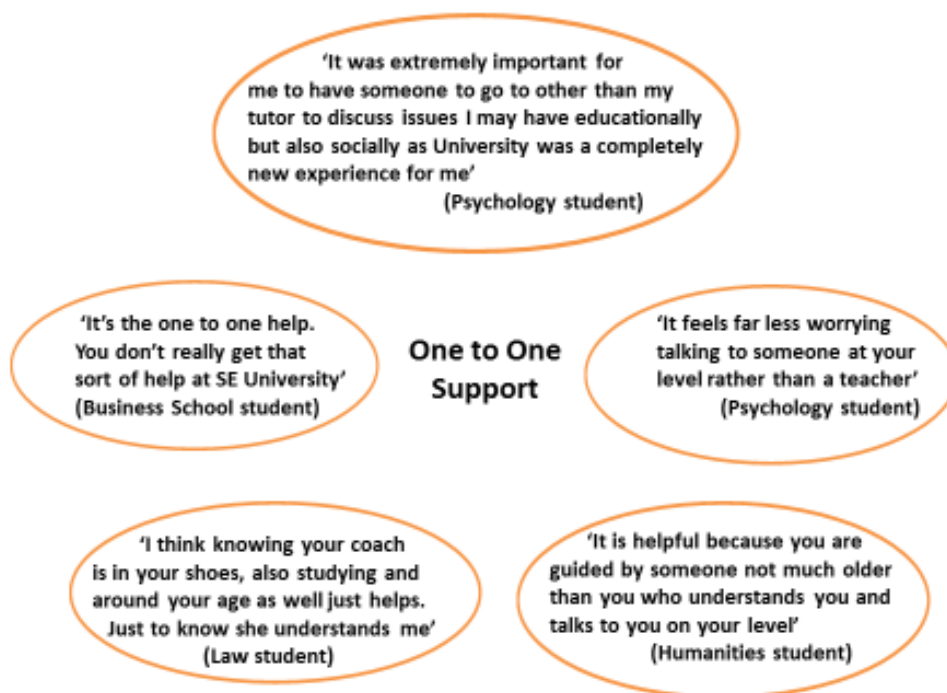


Figure 5.7 Supporting the theme 'One to one support'

These positive findings are interesting when considering the outcomes of the Sander and Sanders (2009) ABC questionnaire results in Chapter 6. It will be seen that on the issue of 'asking lecturers questions in a one to one setting or during lectures' there had been little improvement from pre to post-coaching in these respects. It

could be interpreted from these findings that having a peer coach in some ways hampers students from approaching staff and tutors directly. It should be noted however that part of the coach training had included appropriate 'signposting'. Coaches were encouraged to support their coachees to approach their tutor directly in the event of any difficulties. This encourages the coachees to become more self-sufficient in seeking support after the peer coaching relationship has finished thus leading to improved self-efficacy.

Whilst other interventions such as student support sessions, delivered by staff, are available at SE University, it can be seen from the quotes that it is particularly valuable when the support is offered by a peer rather than a member of staff. Similar findings have been reported for peer assisted learning (PAL) by Capstick, Fleming and Hurne (2004) who found that students taking part in PAL enjoyed being able to discuss academic concerns away from teaching staff. In this study however, not only did the students report that they perceived the peer coaching helpful when it is being offered by a more experienced peer but they also indicated the benefits of one to one peer support as opposed to group sessions.

Theme 4 - Practical and Emotional Support

Many of the coachees cited the practical or specific study goals help that they were given as being very valuable. This concurs with the findings from the Sanders and Sanders and Sanders (2009) ABC scale data that is explored later in Chapter 6 suggesting that academic behaviour confidence had improved from pre to post-coaching. Coachees were able to identify in what way the peer coaching had assisted them. This ranged from simply organising their time more efficiently to setting actions, as the following extracts suggest.

'She has made it more manageable. Definitely breaking things down into set pieces'
(PAM student)

'It has helped me to manage my time a lot better' (Engineering student)

'I learned how to structure my essays properly, like how to write the introduction and make it relevant to the title' (Business student)

'I really struggled with the cognitive module so extra help was provided'
(Psychology student)

'The most useful aspect of the coaching was the actions because now I have set myself actions. I have found a placement now which was one of my actions. She helped me write cover letters and with my CV' (Psychology student)

These quotes and extracts demonstrate the practical support that was offered by the coaches to the coachees. It also demonstrates that the coaches were identifying goals, breaking down tasks into more manageable ones and agreeing actions for the coachee to follow. This approach is also likely to lead to improved self-efficacy in the coachees through the achievement of small goals, (Ives & Cox, 2012).

Whilst the peer coaching support offered was promoted as having an academic focus it can be seen from the following extracts that support of a more emotional nature was also offered by some coaches. A number of participants referred to more general benefits regarding their course requirements and obtaining this more emotional support.

'My peer coach helped me to understand what was required from me for my course. Without my coach I don't think that I would have been able to do it in that way' (Humanities student)

'I think it has helped me to understand to make a point and not just waffle on. I think she has given me a skill I can use for life now' (Law student)

'It brought back my self-confidence because at one point in time I was demoralised' (Education student)

'For me it was just making sure that you know and understand the key concepts' (Pharmacy student)

'I think now my journey as a student is completed because my coach helped me fulfil why I came to university to get a first and she's really helped me do that and now I feel satisfied. I don't have any regrets because she really helped me to achieve my potential' (Humanities student)

'She was so outgoing, lively and enthusiastic about our coursework and spoke with so much passion' (Law student)

To enable the students to think in a more detached way, they were asked if they would recommend the peer coaching programme to other students. They were also asked to cite the reasons why they would or would not do so. The majority, indeed all

but four respondents would recommend it to other students offering reasons such as the ones below in addition to the previously mentioned benefits in improving grades and motivation.

'I definitely would recommend it. I already have to 3-4 people' (Pharmacy student)

'I have already recommended two of my friends. This programme is a blessing and should be made known to all students' (Law Student)

The four respondents who would not recommend the programme to others gave the following reasons:

'There was not enough time. I was matched up late in the year'
(Engineering student)

'No because I didn't get a helpful coach' (Pharmacy student)

'He did not offer me the help that I requested' (Pharmacy student)

'If the coach is suited to the desired coursework, for sure' (Dietetics student)

It is worth noting however that the two Pharmacy students above were matched with the same coach which would indicate that the coach in this particular case perhaps did not fulfil their role as envisaged. It is also worth noting too that the Dietetics students was not matched with a peer coach studying the same course but had originally requested support with a module specific to that subject area.

Further Comments

Students were asked to add any other comments on the survey questionnaire that they wished to raise and had not already been covered by the previous questions. Whilst the majority chose not to make any additional comments, a number that did appeared to want to reiterate the benefits that they felt they had gained from the experience. It was interesting however that some of these comments demonstrated an appreciation of the programme being well managed within SE University.

'It is a good programme and well run' (Psychology student)

'This programme is very successful and a brilliant service that the university has ever offered in my opinion and enables other students to learn from each another'

(Maths student)

It is likely that having well organised procedures for applying for coaching both as a coach and as a coachee brought about these comments. As described in Chapter 1, SE University has robust processes such as these in place as well as thorough training for coaches and an induction process for those wishing to apply, all of which adhere to good practice. The importance of this was seen from the literature for mentoring programmes as a whole that suggested guidelines for success. Aspects such as adequate monitoring and management as well as careful matching of mentors and mentees were seen to be important factors for mentoring programmes, (Husband and Jacobs, 2009). It could be inferred from this that peer coaching should follow similar guidelines for success.

Enlightenment

It can be seen from the evidence that the peer coaching has also been instrumental in bringing an increased understanding of the requirements for success in higher education study. Having the opportunity to share experiences with a more experienced student inevitably leads to the enlightenment of the less experienced students as to academic expectations. From the case stories in Chapter 4, this process has been described and demonstrated to have taken place for example with the coaches discussing past exam papers with their coachees and sharing module guides for the following year. As students were matched with those studying the same or a similar course this sharing of experiences was seen to be particularly beneficial by the coachees. It was also seen from the qualitative evidence that this enlightenment had taken place:

'My peer coach helped me to understand what was required from me for my course'

This aspect of peer coaching may be particularly beneficial for those students who are from widening participation backgrounds who have not had the advantage of parental involvement in higher education.

'It was extremely important for me to have someone to go to other than my tutor to discuss issues I may have as university was a completely new experience for me'

This enlightenment and improved understanding of the requirements of their course and for success could be a key factor in the success of the peer coaching intervention. A link has been found to suggest that students with unrealistic expectations about the nature of teaching and learning in higher education are more likely to withdraw from their studies (Charlton, Barrow and Hornby-Atkinson, 2006, Lowe and Cook, 2003 and Yorke, 2002). Nicholson, Putwain, Connors and Hornby Atkinson (2013) suggest that students will perform better if they have a realistic expectation of personal responsibility for independent study in higher education. The peer coaching has been seen to facilitate this type of knowledge acquisition.

The Coach Perspective

Coaches too were asked to contribute to focus groups in order to obtain their views on the coaching programme and their perceived impact upon their coachees. In total two focus groups were held with 14 contributors. The views of the peer coaching from the coaches' perspectives concurred mainly with that of the coachees. Similar themes emerged such as the coaches noticing improved confidence in their coachee/s and also with their time management and planning. A number also referred to noticing improved motivation in their coachee as shown in the quotes in Figure 5.8.



Figure 5.8 Examples of ‘Planning and Motivation’

Many of the coaches referred to having to spend time with their coachees in order to establish the main areas required for support. This corresponds with the data collected from the coachees upon initial application. It has been seen that the support they had initially requested did not always concur with the support that was actually given as part of the coaching process, indicating some unawareness of their own developmental needs. The following extracts from the focus groups and questionnaires illustrate how the coaches were able to facilitate more awareness of development needs in their coachees.

'I would ask what he wanted help with and he went 'I don't know'

(3rd Year Law Student)

'There were a lot of things he needed help with but he just didn't know what they were'

(3rd Year Pharmacy student)

'A lot of the time I found the coachees came to me and they didn't know exactly what it was they wanted. And you have to tease it out of them, how they are going to improve'

(3rd year Business School Student)

The coaches also identified increased confidence for their coachees as one of the main benefits of the peer coaching. A number talked about giving reassurance as being part of the coaching process.

'He was always confused every time I met him, whether he's doing the right thing or not. So I think by saying 'This is good' it helped him to see that he's fine and stop second guessing himself'

(3rd year Law student)

'He couldn't understand why his grades were low And I think we had to work on 'if you're not sure why you're doing the course then your confidence won't be high'

(3rd year Pharmacy student)

'She was quite worried about going into the final year so giving her that boost of confidence that you know if you continue working hard like this then you'll be fine within the final year as well'

(3rd year Psychology student)

It has already been recognised by some that participating in a peer support programme can also have benefits for those who offer the support (Smith, May and Burke, 2007, Hartman, 1990 and Goodlad, 1998). In particular where the purpose of peer support is academic, it has been observed to lead to increased learning for those offering support. Whitman (1988) for example reported for a peer teaching

intervention that those offering support gained a better understanding of their subject by reviewing and organising the material to be taught. It is certainly apparent from the data collected here that the coaches found the experience rewarding, giving them a sense of satisfaction. They were able to recognise and identify a number of qualities that they felt they had developed as a result of being a peer coach. These included improved listening, patience and problem solving skills as well as improved confidence. The extracts found in Figure 5.9 demonstrate some other communication skills that they felt they had developed.

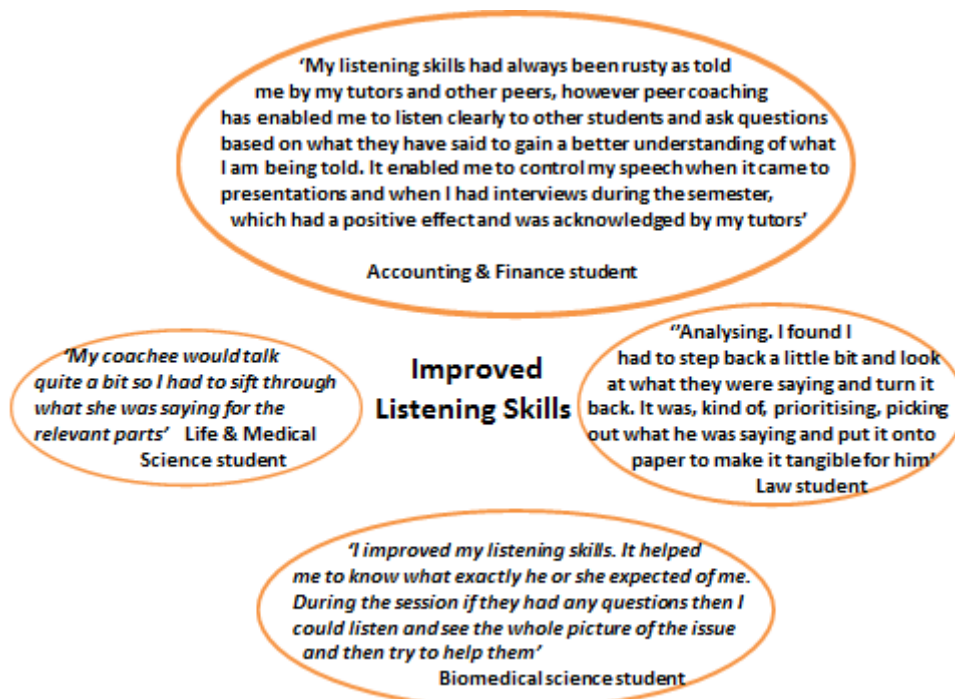


Figure 5.9 Supporting the theme 'Improved listening skills'

Other self-reported benefits in addition to improved confidence included being more focused and becoming more patient as can be seen by the following coach extracts.

'Whilst coaching I was able to practice teaching which helped me learn to explain things better. It helped me become more focused'

(Tourism & Event Management student)

'I received an email from one coachee thanking me and actually telling me I had helped him improve his self-esteem and confidence. Helping my fellow peers has immensely improved my confidence and has made me feel very positive about my own studies'

(Law student)

'I have developed a lot of skills by taking part in the peer coaching programme. I have become more patient than I was before which is the result of explaining things to my coachees numerous times if required. Also interpersonal skills as I worked with different coachees having different learning styles and different personalities. Therefore I can work with different people' (Psychology student)

Whilst acquiring these qualities may not necessarily lead to any improvement in academic attainment in the coaches they are qualities that will likely be deemed useful in both personal and working life. In addition to this there has previously been found to be a link between academic confidence and academic attainment (Nicholson, Putwain, Connors and Hornby-Atkinson, 2013). Nicholson *et al.* (2011) suggest that given the overlap between academic behavioural confidence and academic self-efficacy, one would expect that academic behavioural confidence would also be related to academic achievement.

What was also apparent from the qualitative data was that the coaches had recognised improvements in their own academic progress. Whilst the peer coaching intervention at SE University was not particularly designed to improve the academic attainment of the coaches, it did appear to impact on this in a number of ways as can be seen from the following focus group extracts.

'My knowledge of the subject area and its application has improved. Together we would smash Maths!! If there was a coachee of the year award, he should get it! So hard working, really clever – more so than he thinks! I have suggested that he become a peer coach – let's hope that he does' (Maths student)

'It helped with my revision especially with Maths because the material that we covered is material that we did over the last year. We forget it so quickly – within months. So stuff like I was going over with him, I was remembering as well. So in my third year it is definitely going to help' (Maths student)

The following extracts also demonstrate that the coaches too benefited from improved organisational and time management skills. It appears that taking on the responsibility of the coaching role encouraged them to become even better organised and follow their own advice.

'I found that I used the techniques I taught my coachees and by applying them myself (to test them out) I was able to manage my work and achieve positive results.'

It also encouraged me to look into the workshops that the university offered to take myself which I wouldn't have necessarily done or tried to find out about before'

(Education student)

'I was in my final year this year. I found it kept me organised myself – having to sort of plan what you're going to do with coachees. Doing that kept me on track and not getting distracted basically'

(Law student)

'I feel I have developed my time management skills and confidence. Also a mentor/teaching role as I was supporting and offering feedback to each coachee. I had to be more organised in order to support coachees and carry on effectively with my studies. I feel I have become more organised in my own assignments as a result'

(Life & Medical Science student)

Self-Development

A variety of other skills were mentioned as having been gained though the experience of being a peer coach as can be seen from the focus group and questionnaire extracts below.

'My own efficiency improved. You think that you can manage yourself well but you don't know that until you manage someone else's time as well'

(Maths student)

'Peer marking is a pretty good skill that I picked up because I want to go into teaching in the future'

(Law Student)

'I was able to see things from a different perspective a bit better than I had done previously'

(Business School student)

'I did an in-depth assessment of someone else's work and being more critical came through..... also being a bit more empathetic as well'

(Law student)

It has been noted previously that there is a link between academic confidence, self-efficacy and academic attainment. It has been suggested that over-confidence can lead students to believe that academic success is a result of intelligence rather than hard work which can then lead to reduced levels of motivation and effort (Goldfinch and Hughes, 2007 and Mueller and Dweck, 1998). Whilst the peer coaches in this programme at SE University were selected specifically on the basis that they were achieving well academically and achieving a 2:1 or above, it appears that despite

this past performance, a number had reported an improvement in their own academic progress and development.

The reported improved communication skills are also likely to bring wider and longer term benefits to the volunteer coaches. It has already been identified by Eldridge and Wilson (2003) and Norris, Lefrere and Mason (2006) that volunteering whilst at University in such activities allows students to hone transferable skills sought by employers following graduation. The experience of peer coaching can also be used by the coaches in job applications and for CV enhancement. This benefit is widely promoted when recruitment takes place for coaches at SE University as well as the offer of a personal reference upon successful completion of the programme.

Summary

The different qualitative data collected from both the coachees and coaches are consistent with each other and indicate that the support did impact on the perceived academic performance of the coachees. Specific examples of how this occurred were given freely by the participants and frequently as can be seen from the extracts. Zimmerman (2002) advocates self-monitoring processes which have been shown to help students to develop themselves as self-regulated learners. This includes the setting of goals, managing their time efficiently and monitoring performance for signs of progress. Coaching is a process where self-reflection is key to the process of self-development. Putwain and Sander (2014) also suggest that practitioners incorporate reflective exercises into study skills programmes in order to help students recognise their own strengths and weaknesses. As can be seen from the evidence, the peer coaching is also an intervention that employs this type of technique. Putwain and Sander (2014) also go on to suggest that a mastery goal may be one of several factors that drive students to persist with their studies and make efforts to overcome challenges rather than give up. Again coaching is said to be a 'goal focused' activity (Ives and Cox, 2012) which could explain this perceived impact of the peer coaching by the coachees on their academic attainment.

The self-development, increased confidence in the coaches and benefits that they felt that they had experienced as a consequence of being a coach are perhaps a more unexpected outcome. Whilst altruistic reasons had mostly been cited as the initial incentive for taking part in the coaching programme, it appears that other rewards had been forthcoming. The benefits of being a peer supporter have been

previously reported by others such as Whitman (1998) and it is reported that any student engagement in their own institution is accepted as being beneficial (Astin, 1984, Kur, Kinzie, Schuh and Whitt 2005 and Pascarella and Terenzini, 2005). These findings appear to concur with this illustrating that it may even be a predictor of academic student success. The reported improved communication skills may also lead to increased employability in the student coaches.

It is apparent from the data presented that the coachees have benefited from the peer coaching in a number of ways. They had a perception of increased confidence and higher motivation and attribute this to the coaching process. The coachees claimed to have appreciated, in particular, the practical support from a fellow student rather than a member of staff. It is clear from the quotations that the 'one to one' aspect of the coaching is particularly important which was also seen from the case story on Deetah in Chapter 4 who perceived the most useful aspect of the coaching to have been the attention given to her.

What is also apparent from the data is that the peer coaching programmes created a culture of 'helpfulness' and 'wanting to give something back'. Around one third of students who had received the coaching support have themselves expressed an interest in becoming a coach or mentor the following year. Of the third who did not, they cite either a lack of confidence in their own academic abilities or a lack of time to do so. Many stated that they would consider becoming a coach not next year but in their final year.

The following chapter explores the quantitative data that was collected for both the coached and control group. Comparisons are made in the academic attainment of both groups which sheds further light on the impact of the peer coaching provision as regards improved academic attainment.

CHAPTER 6

The Quantitative Findings on the Impact of Peer Coaching

In this chapter the quantitative pre and post data gained from Sander and Sanders (2009) ABC scale are explored. In addition to this the module grade data obtained from students who received the peer coaching is compared to the module grade data collected from the non-coached, control group. The chapter is divided into two sections: the first exploring the coachee perception data collected on academic confidence pre and post-coaching. The second section highlights the academic achievement of students who received coaching and compares the performance data with that of the students in the non-coached, control group.

It has been identified in Chapter 4 that there are some gaps in the data evidencing the exact degree of communication between coaches and coachees as not all of the coaches submitted contact logs. However it is apparent from the contact logs and the ementoring platform, that the communication between the coaches and the coachees was relatively active demonstrating an intensity of coaching engagement.

Table 6.1 defines the types and numbers of each sample collected including student perception data as well as the performance data in the form of module grades for the coached and non-coached control group.

	PERCEPTION DATA		PERFORMANCE DATA	
	Post-coaching perceptions of student satisfaction and academic performance	Post-coaching Sander & Saunders – Self-efficacy questionnaire	Module Grade Data-Semester A	Module Grade Data-Semester B
Coached Group	65 (150 collected pre-coaching)	63 (150 collected pre-coaching)	146	127
Control Group	Not collected	Not Collected	92	72

Table 6.1 Types and numbers of data samples collected

Student perception data was not collected for the control group as no opportunity for doing so both pre and post-coaching was feasible. The module grades for this group were collected for both semester A and B. It should be noted that not all students answered every question on each of the questionnaires resulting in some gaps.

When making comparison calculations on both pre and post results, those students with any missing data were eliminated.

Collecting pre-coaching questionnaires from the coached group was less problematic as the process was combined with the peer coach application, induction and coach selection process resulting in 150 questionnaires being completed.

However post-coaching questionnaires were harder to obtain with less than 50% of this group repeating the questionnaire at the end of the programme. This has been experienced by other researchers such as Sanchez, Bauer and Paronto (2006) and Short and Baker (2010) where post intervention data had decreased in numbers as the study progressed.

Student Perceptions and Satisfaction with Academic Performance

Quantitative data were collected from the participants both pre and post-coaching in the form of Likert scale questions. In total 65 completed sets of pre and post questionnaires were collected from the 150 students who received coaching. None of the participants from the control group provided any post-coaching data and so their pre-coaching data were excluded in these calculations. Coachees however were asked both pre and post-coaching to specify their level of confidence and satisfaction in the following three areas using a 7 point Likert scale:

- How satisfied they were with their academic progress
- How they felt they were managing the requirements of their course
- How satisfied overall they were with student life

Whilst the peer coaching was not particularly designed to support student satisfaction, there would likely be a link with this and academic performance as has been explored by McKenzie and Schweitzer (2001) and Martirosyan, Saxon and Wanjohi (2014).

Tests were carried out on the reliability of the scales and to determine internal consistency using the guidance provided by Pavot, Diener, Colvin and Sandvik (1991). Using these guidelines the three scales were found to have a good internal consistency, each with a 0.86 Cronbach alpha coefficient reported. A paired sample t-test was then calculated on all three scales to determine whether there was a statistical increase from pre to post-coaching.

There was found to be a statistically significant increase in student satisfaction with their academic progress from pre-coaching ($M = 3.56$, $SD = 1.45$) to post-coaching

(M = 4.30, SD = 1.43); $t(60) = 3.65, p < .0005$. The mean increase in satisfaction with academic progress was 0.74 with a 95% confidence interval ranging from 1.14 to 0.33. The eta squared statistic (.18) indicated a large effect size.

There was also a statistically significant increase in student perception of how they were managing their course requirements from pre-coaching (M = 3.98, SD = 1.41) to post-coaching (M = 4.72, SD = 1.37); $t(59) = 4.24, p < .0005$. The mean increase in the perception of being able to manage course requirements was 0.74 with a 95% confidence interval ranging from 1.08 to 0.39. The eta squared statistic (.24) also indicated a large effect size.

There was also a statistically significant increase in the students' satisfaction with student life from pre-coaching (M = 4.24, SD = 1.48) to post-coaching (M = 4.77, SD = 1.30); $t(61) = 3.07, p < .0005$. The mean increase in satisfaction with student life was .53 with a 95% confidence interval ranging from 0.88 to 0.19. The eta squared statistic (.13) indicated a moderate effect size.

These results seen in Figure 6.1 would indicate that the students perceived themselves to be performing better academically, were more satisfied with their academic progress and in general with student life from pre to post-coaching.

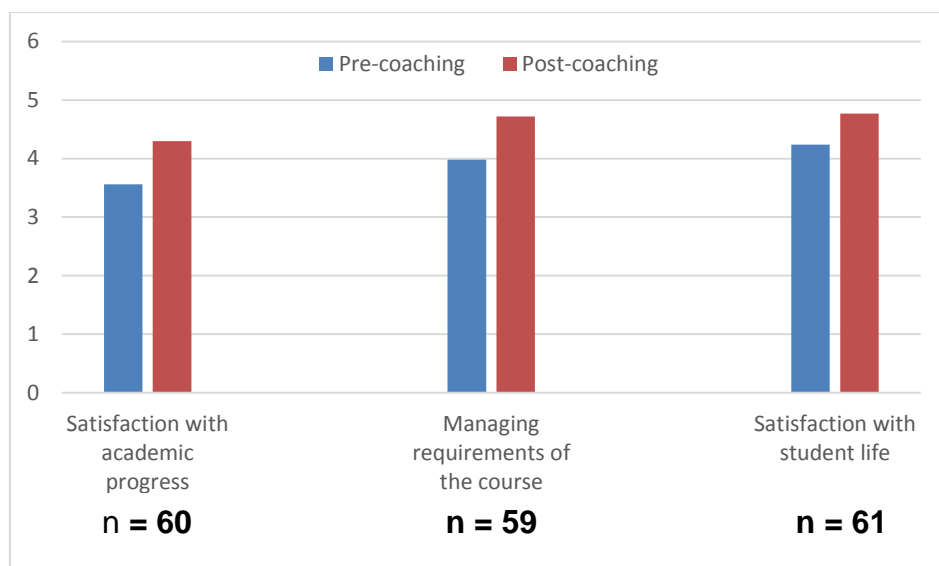


Figure 6.1 showing pre and post-coaching scores

It was seen from Chapter 5 that students had been asked pre-coaching what they perceived to be a 'good' grade before embarking on the coaching programme. As the coaching intervention had been promoted to improve academic performance it was significant to obtain an insight into what the participants perceived to be a 'good' grade. This information would also prove useful in determining any change in

perception of academic progress post-coaching. The majority of students reported that a 1st class or 2nd Class honours degree would be considered as a 'good' grade. As was seen in the previous chapter and shown in Table 6.2.

Grade	Pass	3rd	2:2	2:1	1st
Number of Students	2	2	6	72	63

Table 6.2 Student perceptions of a 'good grade' pre-coaching intervention

Only 4.5% of the students considered a 2:2 or below as a 'good grade'. Post-coaching the same question was posed although only a total of 63 (as opposed to 150 pre-coaching) responses were obtained (two students failed to answer this question on the post questionnaire). The distribution of answers can be seen in Figure 6.3.

Grade	Pass	3rd	2:2	2:1	1st
Number of Students	2	3	9	34	15

Table 6.3 Perceptions of a 'good grade' post-coaching intervention

The distribution of answers had moved from pre-coaching scores with 22% now stating that a 2:2 or below was a 'good' grade as can be seen in Table 6.3. This shift could represent a more realistic approach to academic goals and attainment or it was possibly due to the significant reduction of post-coaching responses. Other explanations such as over-confidence could also be responsible for this change in opinion. It has been identified by and Zusho, Pintrich and Copolla (2003), Klassen (2004) and Schunk and Pajares (2009) that students can be over-confident at the outset of their academic studies. The case stories in Chapter 4 also highlighted a possible examples of unrealistic student expectations and academic over-confidence.

The data was further explored to look for differences in female and male perceptions. Colvin and Ashman (2010) had found that in mentoring relationships, males placed more value on the academic benefits than females. Other studies such as Jackson (2003) have reported that men are more likely to rate their academic abilities more highly than females. However in this data the perceived confidence for males to both complete their studies and attain good grades were not found to be significantly different from female perceptions as can be seen from Table 6.4

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Pre-coaching confidence in completing studies	Male	47	5.66	1.536	.224
	Female	104	5.40	1.498	.147
Pre-coaching confidence in receiving a good grade	Male	48	4.38	1.511	.218
	Female	103	4.17	1.387	.137

Table 6.4 Difference in pre-coaching confidence between female and male students

There is other research to suggest that students may be over-confident at the outset of undergraduate study but soon discover that the programme of study is more difficult than anticipated, (Klassen, 2004, Zusho, Pintrich and Coppola, 2003, Schunk and Pajares, 2009). This may account for the anticipated dip in self-efficacy as suggested by Putwain and Sander (2014). It can be seen from Table 6.5 that those students in their first year participating in this study did show a slightly increased pre-coaching confidence level in 'attaining a good grade' to those students in their second year of study.

Likert scale	1 Not confident at all	2	3	4	5	6	7 Very confident
Year 1 students (86)	1.5%	6.9%	11.5%	15.4%	18.5%	6.2%	6.2%
Year 2 students (50)	4.4%	2.2%	8.8%	18.7%	15.4%	3.3%	2.2%

Table 6.5 Pre-coaching confidence in attaining a good grade Year 1 and 2 students

The pre-coaching confidence levels for those in the 3rd and 4th year of study are not reported due to the low numbers of student participants within these categories.

Post-Coaching Perceptions

In addition to these pre-coaching questions the Sander and Sanders (2009) Academic Behaviour Confidence (ABC) scale, which has been widely utilised as a survey instrument in pedagogical research and practice, was also used both pre and post-coaching. This enables self-efficacy and self-concept to be measured on academic confidence only. Self-efficacy has been demonstrated to be instrumental in

academic success as has been reported by Pajares and Schunk (2006), Crozier (1997) and Sander and Sanders (2009). In particular within a higher education context where autonomy and independence of students are essential to success. it is said to affect academic performance.

The Sander and Sanders (2009) ABC questionnaire is designed to measure confidence levels in relation to academic behaviours which are recognised as being required for success in higher education but not related to a specific academic subject or task. In 2009, Sander and Sanders revisited the ABC questionnaire that was originally developed in 2003. It had been documented that the original ABC scale may not have been unidimensional and that the original six subscales were behaving in different ways, reducing the size of the anticipated ABC effects. The revised and reportedly more valid subscales were reduced to four and comprised of Grades, Verbalising, Studying and Attendance.

Tests were carried out on the reliability of all 24 of the Sander and Sanders (2009) scales and to determine internal consistency. All 24 items were found to have a good internal consistency, with a Cronbach alpha coefficient reported of 0.95. The full table of pre and post-coaching mean results can be seen in Table 6.6.

QUESTION (Likert scale 1-5)	Pre-coaching mean score	Post-coaching mean score	Increase/Decrease
Confidence in your ability to:			
1 Study effectively on your own in independent/private study	3.35	3.92	+ 0.57
2 Produce your best work under examination conditions	2.59	3.33	+ 0.74
3 Respond to questions asked by lecturer in front of a full lecture theatre	2.57	3.12	+ 0.55
4 Manage your workload to meet coursework deadlines	3.27	3.98	+ 0.71
5 Give a presentation to a small group of fellow students	3.43	3.88	+ 0.45
6 Attend most taught sessions	4.12	4.33	+ 0.21
7 Attain good grades in your work	3.08	3.70	+ 0.62
8 Engage in profitable academic debate with your peers	3.08	3.40	+ 0.32
9 Ask lecturers questions about the material they are teaching, in a one-to-one setting	3.60	3.90	+ 0.30
10 Ask lecturers questions about the material they are teaching, during a lecture	2.83	3.33	+ 0.50
11 Understand the material outlined and discussed with you by learners	3.31	3.63	+ 0.32
12 Follow the themes and debates in lectures	3.33	3.55	+ 0.22
13 Prepare thoroughly for tutorials	3.10	3.53	+ 0.43
14 Read the recommended background material	2.86	3.24	+ 0.38
15 Produce coursework at the required standard	3.15	3.64	+ 0.49
16 Write in an appropriate academic style	3.12	3.47	+ 0.35
17 Ask for help if you don't understand	3.42	3.88	+ 0.46
18 Be on time for lectures	4.10	4.34	+ 0.24
19 Make the most of the opportunity of studying for a degree at university	3.51	3.73	+ 0.22
20 Pass assessments at the first attempt	3.49	3.68	+0.19
21 Plan appropriate revision schedule	2.79	3.41	+0.62
22 Remain adequately motivated throughout	2.66	3.24	+ 0.58
23 Produce your best work in coursework assignments	3.17	3.58	+ 0.41
24 Attend tutorials	4.20	4.32	+ 0.12
Average Scores	3.26	3.68	+ 0.42

Table 6.6 Pre and Post Mean Scores for Sander and Sanders (2009) ABC Scale

From these calculations it can be seen that there is an increase in the mean scores of all 24 aspects of self-efficacy from pre to post-coaching. It can also be seen that there was an overall increase of 0.42 in the total average scores from pre to post-coaching. A paired samples t-test was conducted to determine whether these increases from pre to post-coaching were statistically significant. There was found to be no statistical significance in the increase (ie the p value < 0.05) in the following items:

- Follow the themes and debates in lectures
- Make the most of the opportunity of studying for a degree at university
- Pass assessments at the first attempt
- Attend tutorials

The Eta squared statistic was calculated to determine the effect size of each item using Cohen's d (1988) guideline where .01 is a small effect, .06 is a moderate effect and .14 is a large effect. The Eta squared statistic shows the proportion of variance associated with or accounted for by each of the main effects. The least impact or movement was seen with 'attending tutorials' although the initial pre-coaching mean score for this question was relatively high at 4.1. As the aim of the coaching was academically focused it is not surprising that 'Making the most of the opportunity of studying for a degree at university' showed little change from pre to post-coaching. The more social aspects of attending university were not a particular focus for the peer coaching intervention at SE University.

There was however a large statistically significant increase from pre to post-coaching items as shown in Table 6.7 using Cohen's (1988) calculation and a moderate effect is shown for the items in Table 6.8.

QUESTION	Eta squared statistic
Study effectively on your own in independent/private study	.23
Produce your best work under examination conditions	.33
Respond to questions asked by lecturer in front of a full lecture theatre	.25
Manage your workload to meet coursework deadlines	.38
Give a presentation to a small group of fellow students	.17
Attain good grades in your work	.30
Ask lecturers questions about the material they are teaching, during a lecture	.19
Prepare thoroughly for tutorials	.17
Produce coursework at the required standard	.21
Ask for help if you don't understand	.14
Plan appropriate revision schedule	.26
Remain adequately motivated throughout	.29
Produce your best work in coursework assignments	.15

Table 6.7 showing items where a large significant increase from pre to post-coaching was identified

QUESTION	Eta Squared Statistic
Engage in profitable academic debate with your peers	.11
Ask lecturers questions about the material they are teaching, in a one-to-one setting	.07
Understand the material outlined and discussed with you by learners	.11
Read the recommended background material	.09
Write in an appropriate academic style	.09
Be on time for lectures	.08
Attend most taught sessions	.09

Table 6.8 showing items where a moderate effect size was found from pre to post-coaching

The most notable areas of improvement as shown in Table 6.5 were with:

'Producing your best work under examination conditions' showing a mean increase of 0.74 (from 2.59 to 3.33) and 'Managing your workload to meet coursework deadlines' showing a mean increase of 0.71 (from 3.27 to 3.98)

As the peer coaching was offered at the end of semester A and into the beginning of semester B, this result is unsurprising as exam preparation had been previously identified as a pressing issue at the time the students applied for coaching support. Coursework deadlines were also approaching at the time that the peer coaching was offered.

The relatively high scores for 'Attaining good grades in your work' and 'Remaining adequately motivated throughout' concur with the qualitative data obtained from the focus groups as was reported in the previous chapter. Students perceived themselves to be attaining higher grades and as having been motivated by their coaches.

Another significant increase was found with 'Planning an appropriate revision schedule' showing a mean increase of 0.62 (from 2.79 to 3.41). This aspect was again reported by both coaches and coachees in the focus groups and survey questionnaires to be one of the most discussed topics as was seen in the previous chapter.

Although these results might initially appear very positive, it should be noted that the increases may have occurred naturally through the passage of time alone or even through other interventions and support received. The perceptions are also self-reported and so may be skewed. It has long been established that surveyed participants may respond in a socially desirable way, Bernreuter (1933) and Humm and Humm (1944). As the peer coaching was promoted as an intervention to raise academic performance, the participants would have been fully aware of the desired outcomes which may have influenced their answers. Due to all these factors, these findings alone cannot be attributed as a direct consequence of the peer coaching support.

It is worth remembering that academic over-confidence has been reported for many students at the onset of their studies, (Zusho, Pintrich and Coppola, 2003; Klassen, 2004; Schunk and Pajares, 2009) and this trend did appear to be the case for the students in this study. As can be seen from table 6.9 there is a slight increase in the Sander and Sanders (2009) ABC scores for the students in their first year compared to those in their second year.

Year of Study	Number of students	ABC score lowest	ABC score highest	Average score
1	25	2.83	4.96	3.27
2	22	2.54	3.42	3.16
3	6	3.25	4.29	3.41

Table 6.9 showing ABC scores for coached students in each year group

Bong (2001) noted that students with a strong sense of self-efficacy are willing to invest greater effort and persistence in completing challenging tasks. Robbins,

Lauver, Davis, Langley and Carlstrom (2004) noted that the best psychosocial and study skills predictors of academic performance are academic self-efficacy and achievement motivation. Therefore the increased scores found in the self-efficacy of the coached students are perhaps likely to result in higher levels of performance.

Module Grade Data

To analyse the module grade data, the average overall grades were calculated for each student participant. This allowed comparisons and calculations to be made between those who were coached and those in the control group to determine any differences in attainment between the different groups. In addition to this, an average grade for both semester A and semester B was calculated. The average grades were calculated for each student without taking into account any 'weighting' in the modules taken or the number of higher education credit points awarded for individual modules. It is known that some modules for some courses are awarded a greater number of credit bearing points than others. In addition to this, mandatory as well as optional modules were included in the calculations. As the average grades were calculated similarly for all participants in both the coaching and control group, the comparisons made can be considered as valid.

The grades of four students were eliminated from the data set due to inconsistencies. These were due to students not completing semester B exams and/or leaving the institution prematurely.

An independent t-test was conducted to compare the overall average module grades of the participants who received coaching (M = 57.24, SD = 8.8) and the non-coached, control group (M = 52.81, SD = 13.52); $t(239) = 2.80, p = .006$ (two-tailed). The eta squared statistic was calculated to be .03 which demonstrated a small but statistically significant effect size overall.

Group		Number	Mean	Std. Deviation
Average Grade Overall	Coached	149	57.24	8.81
	Control	92	52.81	13.53
Average Grade Semester A	Coached	146	56.54	9.35
	Control	92	52.17	14.14
Average Grade Semester B	Coached	127	58.57	10.91
	Control	72	54.71	14.62

Table 6.10 showing mean grade comparisons between coached and control groups

The independent t-test was repeated to compare the average semester A module grades of the coached group ($M = 56.54$, $SD = 9.35$) and the non-coached, control group ($M = 52.17$, $SD = 14.14$); $t(236) = 2.63$, $p = .009$ (two-tailed). The eta squared statistic was calculated to be .03 which again demonstrated a small but statistically significant effect size overall.

The same independent t-test was repeated to compare the average semester B module grades of the coached group ($M = 58.57$, $SD = 10.91$) and the non-coached, control group ($M = 54.71$, $SD = 14.62$); $t(197) = 2.63$, $p = .053$ (two-tailed). The eta squared statistic was calculated to be .02 which again demonstrated a small but statistically significant effect size overall.

As students had commenced peer coaching at different times, being matched anywhere between January to April, independent t tests were also performed to establish whether there were any differences in academic grades between those who had started coaching earlier compared to those who had started later. No differences were found. However it has already been seen that the frequency of the coachee and coach meetings varied between two and twelve meetings. Whilst some met more frequently over a shorter period of time, others had longer intervals between meetings.

Exploring the Effect for Students Studying Different Courses

Having established a small improvement in grades for the participants as a whole, calculations were then performed for students from each of the different academic schools. This would reveal whether the peer coaching was more effective for one particular group of students. An independent t-test was performed for each group of students from the seven academic schools.

Within the Business School only, the independent t-test revealed that the overall module grades of the coached group ($M = 57.75$, $SD = 9.74$) and the non-coached group ($M = 51.38$, $SD = 12.66$); $t(72) = 2.44$, $p = .02$ (two tailed). The eta squared statistic was calculated to be .08 which demonstrates a moderate effect size.

No such significant difference was found with students from the Humanities, Law, Life and Medical Science, Education or Engineering Departments. It was not possible to calculate this test with any degree of accuracy for Physics, Astronomy and Maths students as there was just one student in this particular control group.

It is worth noting that the peer coaching within the business school was extremely well established with the scheme being in its third year of delivery. Many of the peer coaches were in their second year of participation in the programme and the scheme itself well-embedded within the department. This may be a contributing factor in the success of the programme for business school students in particular.

Correlation

The relationship between post satisfaction with perceived academic progress and average grade obtained was investigated using the Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of assumptions of normality, linearity and homoscedasticity. There was found to be a moderate positive correlation between the variables, post satisfaction with perceived academic progress and average grade, $r = .35$, $n = 65$, $p < .01$.

A similar calculation was performed to check the relationship between perceptions of how well students perceived to be managing their course requirements and average grade obtained. A small positive correlation between the two variables (post perception of managing requirements of course with academic grade) was found, $r = .29$, $n = 64$, $p < .05$.

Whilst these findings indicate a positive link between both satisfaction with academic progress and perceptions of how well they were managing their course requirements with improved grades, it cannot determine that the improved grades resulted from the peer coaching. There has already been a suggestion of a link with coaching and increased hope, resilience and well-being highlighted by Green and Rynsaardt (2007) as well as Campbell and Gardner (2005).

A link has also previously been identified between student satisfaction and academic performance by McKenzie and Schweitzer (2001) and Martirosyan, Saxon and Wanjohi (2014). However, a similar calculation was performed but no correlation found between post satisfaction with student life and academic grade achieved.

Sanders ABC Pre and Post-Coaching Subscales

Further calculations were performed for the four Sander and Sanders (2009) ABC subscales: Studying; Attendance; Grades; Verbalising, to explore in which particular

areas the most impact was seen and which had the strongest relationship. Correlations between the average grade attained and both the pre and post ABC scores were calculated, see Table 6.11.

Subscale	Pre Mean Score	Post Mean Score	Pre to post Difference
Studying	3.02	3.64	0.62*
Attendance	4.14	4.33	0.19
Grades	3.1	3.57	0.47*
Verbalising	2.98	3.43	0.45

Note * = $p < .05$

Table 6.11 showing correlation of Sander ABC scores and average grades

As would be expected from the previous calculations, all subscales showed a positive correlation to some degree although there was a greater effect size found for the subscale, 'Studying'. There was no reportable effect size found for 'Verbalising'. These findings concurred with the qualitative data obtained from the coachee focus groups although it is interesting that the effect size for the 'Attendance' subscale was moderate and had even decreased slightly from pre to post-coaching.

As the peer coaching was specifically developed to support students with their studies and to help them obtain a better understanding of their coursework requirements, the large effect size for 'Studying' is not particularly surprising. The positive correlation had increased significantly from pre to post-coaching, from .17 to .33.

It has been previously identified that there was the least effect size for the subscale 'Attendance' and that the scores for this had been reported as relatively high pre-coaching. Some consideration should be given to the fact that the questionnaires were administered by university staff and so this may have impacted on this particular aspect of the questionnaire. Students may have been reluctant to disclose the fact that they had low levels of confidence in being able to attend lectures and tutorials. The slight decrease seen may even have been attributed to a greater degree of honesty in the replies, post-coaching.

Consideration should also be given to the fact that at the time the post questionnaire was administered, the final module and exam grades of coached students remained unknown. In view of this the scores given by the students would have been based mainly upon speculation. However some students may have had the advantage of seeing semester B coursework marks prior to the post data being collected which

may have impacted on their perceived confidence and subsequent scores. This precise information was not collected and cannot therefore be reported.

Differences in Semester A and Semester B Grades

As the coaching took place at the end of semester A and into semester B, the relationship between these grades was explored for both the control group and the coached group. Firstly a paired sample t-test of the coached group ($n = 127$) revealed a moderate but statistically significant difference in semester A and B grades. The mean increase grades was from 56.72 in semester A to 59.05 in semester B. The eta squared statistic (.05) indicated a moderate effect size.

A similar calculation for those in the control group ($n = 72$) showed no statistically significant increase in grades from semester A to semester B. The average grade in semester A for this group was 53.49 rising to 55.91 in semester B.

Whilst there was an increase in grades from semester A to semester B, in both groups it was more pronounced in those who were coached. It should be noted however that the overall grades of those who received coaching were higher overall.

More detailed analysis was then performed on the participants who received coaching to determine for which groups it may be most effective. Firstly the students who had achieved less than 40% in semester A were explored as these students were in danger of failing and peer coaching potentially could therefore be a factor in preventing this from occurring. Exploring those students who were achieving less than 50% would enable a closer examination of those students who may be borderline 2:2 students which the majority had stated as not being a 'good grade'. Looking at those students who were achieving $> 50\%$ in semester A, enabled further exploration of the impact on those who were within reach of a 2:1.

The calculation on the students who obtained less than 50% in semester A showed that the average grade of the coached group (obtaining less than 50% in semester A) was 42.8 which rose to 50.5 in semester B following the coaching. However the low number of students in this group of 22 impact on the validity and confidence that can be assured from these results.

This t-test was repeated for coached students who obtained less than 55% in semester A. This calculation again showed a significant increase in average grades

of 47.83 in semester A rising to an average of 53.65 in semester B following the coaching. These results include a total of 47 students thereby increasing the degree of confidence in the findings.

These t-tests were repeated for those in the control group. Firstly the students who obtained less than 40% in semester A obtained an average score of 31.85 rising to an average score of 38.2 in semester B demonstrating no statistically significant increase. However with a small number of 10 students, caution should be applied in the degree of confidence that can be held with these findings.

Additional calculations were made to explore the difference in module grades between the control and coached groups at differing achievement levels in semester A. Table 6.12 demonstrates the differences found between these groups.

		Number of students	Semester A mean grade	Semester B mean grade	Difference from semester A to B
Students scoring < 40% in semester A	Coached group	3	29.1	49.0	+ 19.9
	Control group	10	31.8	38.2	+ 6.4
Students scoring < 50% in semester A	Coached Group	22	42.8	50.5	+ 7.7
	Control group	24	39.7	47.5	+ 7.8
Students scoring < 55% in semester A	Coached group	47	47.8	53.6	+ 5.8
	Control group	34	43.7	48.8	+ 5.1
Students scoring > 55% in semester A	Coached group	75	62.3	62.4	+ 0.1
	Control group	35	62.9	62.3	- 0.6

Table 6.12 showing comparisons between grades of coached and control groups

It could be surmised from these figures that the coaching is most effective in raising the grades of students who are performing least well at the onset. However with so few students in this category it would not be possible to conclude this with a strong degree of confidence. It can also be seen that there was a slight decline in the semester B grades of the control group attaining > 55% in semester A but who received no coaching intervention at all.

Difference in Attainment Between Different Groups of Students

The data was also explored to determine the differences in impact on different groups or types of students. The impact on different genders was explored further as well as international, home and EU students.

Gender

The data was further explored to determine the impact for differing groups of students. The difference between the average grades of male and female students was examined in closer detail. Firstly it can be seen that there were significantly more females than males who took part in the coaching, on a ratio of over 2:1. This is not at all representative of the whole student population which is said to be 57% female according to a report by the Higher Education Academy (Berry, 2011). Table 6.13 shows that whilst there was little difference in the academic performance of male and female students in the peer coaching group, males in the control group achieved poorer grades than females.

Gender		Group	N	Overall Mean Grade	Std. Deviation	Std. Error Mean
Male	Average Grade	Coached	45	57.33	9.85	1.47
		Control	42	51.11	14.73	2.27
Female	Average Grade	Coached	104	57.20	8.37	.82
		Control	50	54.24	12.40	1.75

Table 6.13 showing the difference between male and female overall grades

An independent sample t-test was performed to compare the overall average grades of both males and females. There was no significant difference found in the grades of females who were coached ($M = 57.20$, $SD = 8.37$) and females in the control group ($M = 54.24$, $SD = 12.40$); $t(152) = 1.75$, $p = .08$ two-tailed).

However an independent sample t-test to compare the average grades of males who were coached ($M = 57.33$, $SD = 9.85$) and males in the control group ($M = 51.11$, $SD = 14.73$); $t(85) = 2.33$, $p = .02$ two-tailed). The magnitude of the difference in the means (mean difference = 6.22) 95% CI 0.92 to 11.55 was moderate (eta squared = 0.06).

It could perhaps be surmised from these results that the peer coaching was more effective for male students than females. In a mentoring study by Colvin and Ashman (2010) it was found that the majority of male participants reportedly noted improved grades as a benefit whilst females were more focused on the mentoring relationship which would concur with these findings. It has already been found in a Higher Education Academy report that male students are less likely to attain a 'good degree' with just 59% of them doing so, as opposed to 64% of women, Berry (2011). However it may be that males without any supportive intervention fail to improve as well as females who do not receive any support. It would be necessary to have access to pre-coaching intervention grades of both coached and control group to determine this hypothesis with a stronger degree of confidence.

It should however be noted that twice as many female students took part in the peer coaching as males and the genders of the control group contained similar numbers of female and male students.

It is clear from Table 6.14 that males in the control group performed less well than those male students who were coached.

	Gender	Group	N	Mean	Std. Deviation	Std. Error Mean
Average Overall Grade	Male	Coached	45	57.34	9.85	1.47
		Control	42	51.11	14.73	2.27
Average Grade Sem A	Male	Coached	45	57.37	10.01	1.49
		Control	42	50.82	15.81	2.44
Average Grade Sem B	Male	Coached	38	57.78	9.90	1.61
		Control	33	52.91	14.13	2.46

	Gender	Group	N	Mean	Std. Deviation	Std. Error Mean
Average Overall Grade	Female	Coached	104	57.20	8.37	.82
		Control	50	54.24	12.40	1.75
Average Grade Sem A	Female	Coached	101	56.18	9.06	.90
		Control	50	53.30	12.63	1.78
Average Grade Sem B	Female	Coached	87	59.66	10.32	1.11
		Control	37	58.59	10.84	1.78

Table 6.14 showing the comparison between female and male grades

Year Group

Independent sample t-tests were performed for students in all four year groups to compare the results of those who received coaching to those in the equivalent

control group. The results for Year 4 students can be ignored due to low number of coached students in this year and also due to an absence of year 4 participants in the control group for comparison. The number of 3rd year student participants is also low reducing the dependability of the results. The tables in 6.17 show the different results for each of the year groups.

Year of study = 3rd year

	Group	N	Mean	Std. Deviation	Std. Error Mean
Average Grade	Coached	14	59.51	7.52	2.01
	Control	6	54.89	6.84	2.79

Year of study = 2nd year

	Group	N	Mean	Std. Deviation	Std. Error Mean
Average Grade	Coached	52	56.48	7.61	1.05
	Control	39	53.99	14.03	2.24

Year of study = 1st year

	Group	N	Mean	Std. Deviation	Std. Error Mean
Average Grade	Coached	81	57.18	9.64	1.07
	Control	47	51.56	13.81	2.01

Figure 6.2 showing the difference in attainment for different year groups

No significant increase in average grades was found between those in the 2nd and 3rd year of study and those students in each of the equivalent control groups. However for those in the first year of study there was a significant increase in average grade for those who were coached (M = 57.18, SD = 9.64) and those in the control group (M = 51.56, SD = 13.81); $t(126) = 2.70, p = .008$, two tailed). The magnitude of the different means (mean difference = 5.62, 95% CI: 1.50 to 9.73) was small (eta squared = 0.05).

From these calculations it could be concluded that the peer coaching was more effective in increasing grades for those students in their first year of study. Whilst the increase in grades is statistically small, it is likely to impact more effectively in overall degree attainment upon graduation as the skills learned through peer coaching can be implemented in subsequent years of learning.

There is evidence to suggest that assessment results obtained in the first year of higher education study is the best predictor of subsequent results (McKenzie and Schweitzer, 2001). Academic engagement is also likely to be enhanced when students have some understanding of what they are trying to achieve, actively engage in relevant learning activities in and out of class and receive regular and constructive feedback on their performance as well as have the opportunity to use the feedback to make performance improvements in subsequent work (Nicol, 2009). O'Donovan, Price and Rust (2004) also found in their study, the improvement seen in first year student performance through attendance at a 'marking workshop' designed to increase understanding of assessment standards and criteria continued into subsequent years albeit at a diminished level.

Home, International and EU students

It was not possible to check the data with any degree of accuracy for differences in the impact of peer coaching for international, home and EU students. Whilst all students were offered the opportunity of peer coaching, it can be seen from Table 6.16 that the majority of participants in both the control and coached groups were 'home' students. The low number of international and EU student participants (particularly in the control group) did not allow for any reliable statistical calculations to be made.

Type of student	Group	N
International Student	Coached	32
	Control	2
Home student	Coached	108
	Control	90
EU student	Coached	7
	Control	0

Table 6.16 Showing student type

Retention

Exploration was also made into the number of students who had withdrawn from their studies. In the control group it was found that by November 2014 a total of 19 students had withdrawn making a total 20% of the students in that group. In the coached group, 11 students had withdrawn from their studies by the same date, a

total of 9.9%. Whilst it is evident that there was less attrition in the coached group it should be remembered that the grades of the students in the control group were lower overall. This may have been a contributory factor in the higher withdrawals in this group. However it was seen in Chapter 5 that motivation was one of the highly reported benefits for the coachees. It may be that the support given by the coaches could have been an influential factor in lower withdrawal of the coached group. If so, this is another more unexpected benefit of the peer coaching programme as it was not stated as one of the initial aims of the peer coaching intervention at SE University.

Summary

It can be seen from this evidence that the peer coaching would appear to have impacted significantly on academic attainment although it is more evident for some students than others. The evidence presented however would suggest that the perception of improved academic attainment of the coached students is greater than the actual impact found statistically judging by the performance data. Students who were coached perhaps perceived that they were performing better academically than they actually were. It should be remembered however that students provided the post-coaching data prior to receiving their end of year grades. For some students they will have provided the post-coaching data in the knowledge of coursework assignment grades although others will have still have been awaiting exam results.

An important finding is the greater impact of peer coaching on those who were performing less well academically prior to coaching from semester A to semester B. It might be argued that for these students there is greater scope for improvement. However it was seen in the control group, those without peer coaching did not show the same level of improvement from semester A to semester B. The lower the academic attainment prior to coaching, the greater the improvement post-coaching although the numbers in this group were smaller therefore reducing the confidence that can be held in the findings. Whilst those students who were initially achieving over 55% still showed a slight improvement from semester A to semester B, those in the similar control group showed a slight decrease in grade which was particularly significant for the males in the control group. This evidence may be an important factor for higher education institutions when targeting resources at students who are in danger of failing or underachieving.

In addition to this and as shown in Chapter 6, the peer coaching was found to be more effective and statistically significant for those students in their first year of study. It was demonstrated that the mean grade of those who were coached in their first year of study was 57.18 compared to a similar control group who achieved a mean grade of 51.56. If this is taken into account together with the increased levels of self-efficacy as seen for those in their first year, this might be a strong indicator that peer coaching is especially effective for those in their first year of study.

It cannot be ignored that there was found to be a small but significant improvement in average module grades in those students who were coached compared to those who were not. However there was also an improvement to be seen in those who did not receive coaching apart from those students already achieving > 55% in semester A. In particular the peer coaching appears to have had more impact for those in the business school and for those in their first year of study. It might also be surmised that peer coaching had a greater impact for male as opposed to female students. The average grade of males who were coached was 57.33, whilst the males in the control group had an average grade of 51.11. Whilst there were significantly less students in the both the male coached and control groups, the numbers were sufficiently large enough to report this significance with a reasonable degree of accuracy. This could be an indication that the peer coaching had more impact for male students although it may also be explained by the fact that males who have no supportive intervention fare less well than female students who receive no support. In addition there was found to be a difference in the retention rates of those in the coached group. A higher proportion of attrition was seen in those who did not receive the coaching support.

The data presented indicates an increase in academic behavioural confidence that does not particularly concur with the expected dip that takes place over the course of the first year of study reported by Putwain and Sander (2014). Papinczak, Young, Groves and Haynes (2008) had also shown previously that the self-efficacy of first year students declined over the first seven months of study. Whilst Putwain and Sander (2014) found that the expected dip in confidence in year 1 of study had disappeared by the beginning of the second year. From this data it appears that this anticipated trend of decreased self-efficacy had not even occurred. It is also clear from the Sander and Sanders (2009) ABC data that the academic confidence of students who were coached had significantly improved. This was particularly the case for the two subscales; studying and grades. If peer coaching is responsible for

warding off the expected dip in self-efficacy then it could result in other benefits too. It could also have impacted in a number of other ways such as the improved student satisfaction scores that were evidenced and possibly in the greater student retention rates seen in the coached group.

There was also found to be a correlation between satisfaction with academic progress as well as the student's perception of how well they were managing their course with their academic attainment. It is clear from the findings that there is some reality to the students' perceptions of performing better academically although this cannot be directly attributed to being as a result of receiving peer coaching.

It has also been evidenced from the pre and post questionnaires that the numbers of students whose perception of a 'good grade' being a 1st class honours had declined to a 2:1 from pre to post-coaching. This indicates that the students perhaps have a more realistic expectation of higher education study and success which has been shown by Nicholson *et al.* (2013) to lead to improved performance. Putwain and Sander (2014) also suggest that students are helped to identify their own strengths and weaknesses in relation to goals and confidence using reflective exercises. As coaching is a reflective intervention that is designed precisely to identify goals and explore areas for self-development, perhaps this can explain the improved academic behaviour confidence and improved grades of those who were coached.

The final chapters explore the implications of the study for the SE University and for other higher education institutions. They also identify areas for further study and limitations of the findings.

CHAPTER 7

Discussion of the Mixed Methods Study

This chapter discusses the main findings of this mixed methods case study, exploring the impact of the peer coaching. It begins by further examining the findings from the qualitative and quantitative data to look for synergies, differences and disparities. The discussion has been split into five different themes that have been found as follows:

1. Academic enlightenment and improved retention
2. Improved academic behaviour confidence and the impact on different groups
3. Improved academic attainment for particular groups
4. Increased motivation
5. Engagement with tutor feedback

The chapter ends by drawing conclusions from the findings discussing the implications of peer coaching for the case study institution.

This mixed methods study which includes the use of a control group for comparison has offered as robust a methodological approach as possible which has not been evident in most previous peer coaching studies of this nature. Many authors such as Capstick, Fleming and Hurne (2004) and Medd (2012) had previously called for studies of a more quantitatively robust nature to determine the impact of peer support in higher education. The study has however identified a difficulty with control group selection when participants self-select to be a part of an intervention. However the research has utilised sufficiently large volumes of data in order to provide robust statistical analysis enabling the impact of the peer coaching to be explored. The module grades of 238 participants were explored in addition to the pre and post-coaching perception data collected from 65 coachees. The use of a control group has further validated the findings despite the limited selection process and emphasised the differences in attainment between those who were coached and those who were not.

1. Academic Enlightenment and Improved Retention

In both the questionnaires and interviews, the coachees, corroborated by the coaches, were considered to have increased their motivation and to be performing better academically. The peer coaching was seen to help facilitate the academic enlightenment and awareness of the requirements for success from peer coach to coachee. Such realism in higher educational expectations was identified in the literature as important in enhancing student retention Charlton, Barrow and Hornby-Atkinson (2006) and supporting academic performance (Nicholson *et al*, 2013). The quantitative data presented in Chapter 6 highlighted that, for the case study university, the retention of students who were coached was greater than those who were not. In addition, the qualitative data suggested that the support of a peer was seen to be particularly valued by the coachees. The peer coaching intervention had the additional unexpected outcome of increased confidence and organisational skills in the coaches. These twofold benefits make this an intervention worth consideration for higher education institutions to adopt particularly with peer support being reported to be a relatively low cost intervention (Keenan, 2014).

There have been previous qualitative studies on peer mentoring that have demonstrated benefits such as improved retention and social integration. However the precise nature of the intervention in many of these studies was not as well defined as it was for this study. Colvin (2007), Boyle *et al*. (2010) and Andrews and Clark (2011) all reported benefits from peer mentoring such as improved social integration, engagement and retention. It was seen from the literature in Chapter 2, that mentoring is often perceived as a longer term intervention with a more holistic approach whilst coaching is seen to be goal focussed and often a shorter term intervention. The aim for the peer coaching intervention at SE University and the focus of the case study was specifically to improve academic performance through peer coaching rather than to improve social integration. Despite this, it was seen in Chapter 6 that there was an improved retention rate for those in the coaching group compared to the control group. If peer coaching has the added value of increasing confidence, motivation and improving retention for the coachees, despite it being a relatively short term intervention, this might also render it worthy of consideration for inclusion by higher education institutions.

2. Improved Academic Behaviour Confidence and the Impact on Different Groups

In Chapter 6 it was reported how the Sander and Sanders (2009) ABC questionnaire, conducted pre and post-coaching, indicated that the academic behaviour confidence of the students who were coached had improved significantly from pre to post-coaching. The evidence presented in the case stories and in Chapter 5 verifies this, with the coachees reporting that they were better able to structure essays and organise their time, for example. These improved ABC scores from pre to post-coaching were also apparent for those students in their first year of study. Studies such as Zusho, Pintrich and Coppola (2003) and Papinczak *et al.* (2008) reported a decline in self-efficacy over the first seven months of study but not from the middle to the end of the first semester. In the current case study the average ABC scores for each year group were not found to be significantly different from each other. Students in all stages of their studies benefited from increased academic behaviour confidence scores. This could be an indication that the peer coaching in this instance prevented this expected dip from occurring. However there are other likely factors that could contribute to this phenomenon such as past academic performance and perhaps 'cultural capital'. Cultural capital is said to pass from parents to children who have also attended university (Walpole, 2003). As there has been found to be a positive link between academic self-efficacy and academic performance Robbins *et al.* (2004), then any intervention that improves these aspects or prevents the expected dip in the first year of study can be deemed as worthwhile.

The increase in academic behaviour confidence was particularly significant in the two Sander and Sanders (2009) subscales, 'studying' and 'grades' for items such as 'better managing workload' and 'producing work at the required standard'. This quantitative data concurred with the qualitative data presented in Chapter 5. Both coachees and coaches had reported improved performance, being more organised and planning more effectively. This increase in those specific areas would indicate that the peer coaching intervention within the case study institution met its aim of improving academic performance in this respect. A limitation of the study however was the lack of comparable data for the control group. The equivalent pre and post-coaching data was not collected for the control group allowing comparisons to be made with the coached group.

Adding to the evidence of increased academic behaviour confidence, there is a correlation found in the relationship between how well students perceived to be managing their course requirements and the average grade obtained. In Chapter 5 the qualitative findings too suggested that the coachees had a better understanding of the requirements of their course as well as achieving improved grades. In Chapter 6 it was shown that the more students perceived to be managing their course requirements, the higher the grades that they actually achieved. This concurs with previous research to suggest the positive link between academic confidence and academic performance (Putwain and Sander, 2014).

3. Improved Academic Attainment for Particular Groups

It was also seen from the quantitative data presented in Chapter 6 that those undertaking the peer coaching performed better academically than those in the control group who had not received coaching. Whilst there was a significant difference in the module grades, it was not categorised as 'largely' significant for the coached group as a whole but more effective for particular groups of students. The qualitative data collected however might have implied a greater impact than actually occurred as was seen from the case stories in Chapter 4 and coachee post-coaching data in Chapter 5. This was particularly evident in one of the case stories (Tatiana) where the student valued the coaching intervention highly but failed to achieve the required grade for two semester B modules despite the received coaching. Whether the students perceived impact is greater than the actual impact on academic attainment is, to a degree and perhaps unimportant. It has been seen that there has also been a significant improvement in academic behaviour confidence as well as general student satisfaction scores in those who received coaching. These other factors have previously been shown to be linked to academic performance by authors such as Nicholson *et al.* (2013) who suggest that there is a relationship between them. If this is the case then any intervention that can improve these factors alone would be advantageous. If improving these factors will in turn likely lead to an improvement in academic performance, then they are worthy of consideration even if the increase in academic attainment is slight. As this increase in confidence was seen towards the end of the academic year, it may be that the improvement in academic grades may become even more apparent in subsequent years. Nicol (2009) and O'Donovan, Price and Rust (2004) found that the academic improvements observed in 1st year students through specific academic interventions

continued, albeit at a diminished level into subsequent years. If a sustained impact such as this can also be made from a relatively short intervention such as peer coaching, it could be a useful strategy for higher education institutions to adopt. Further study to explore the longitudinal benefits of peer coaching to see if they too persist into subsequent years would be useful.

Whilst an improvement in academic attainment between the coached group and control group was evident overall, it was demonstrated to have had more impact for particular groups of students, in particular for business school students. The reason for it being more successful in improving grades for business school students is undetermined, however. It might be explained by a number of factors such as the peer coaching having been delivered, supported by staff and well embedded within the business school for three years. However a similar effect was not found with law students when the programme had been delivered there for the same period of time and equally well embedded. It may also have been due to the lower numbers of participating students from within the law school in both the control and the coached group; 23 law school students receiving coaching as opposed to 40 business school students. It is more likely however that, despite the programme having been delivered in both academic schools for three years, it is more actively promoted by academic staff within the business school. This would also account for the lower number of peer coaching applications received by law students. There is no reason to suggest that the calibre of law and business schools coaches is different as all undergo the same stringent recruitment procedure and training programme. As was seen from some of the extracts in Chapter 4 however the coaches used a mixture of approaches from directive to non-directive which likely resulted from some being inexperienced novice coaches.

What is apparent is that the average grades of those who were coached showed a small but significant increase from semester A to semester B. The grades of the coached group had increased slightly by two grade points. However, there was also found to be an increase in the control group participants even without peer coaching, albeit not as great or statistically significant. The most significant increase in module grades was seen for those students who were scoring less than 40% prior to coaching which was not so evident for the similarly underachieving control group. However the small sample size for this underachieving group does reduce the degree of confidence that can be held in these findings.

It seems likely from the findings that the peer coaching has made a slight improvement in the grades of those who were coached as well as increase their motivation. Other explanations for these increases cannot be totally disregarded however. Consideration should be given to the disposition of the student who applies for and accepts peer coaching. Whilst the peer coaching was offered to all students at SE University, it may be that students who are sufficiently motivated to apply for peer coaching are more likely to perform better academically. In addition these students may have sought additional academic support from other sources that may have impacted on this improvement in the coached group. However it can be seen from the case story example for Tatiana that engaging in peer coaching does not necessarily result in passing modules and performing well academically.

4. Increased Motivation

It is also clear from both the qualitative and quantitative findings that those students who participated in the coaching reported increased levels of motivation. This was one of the primary themes identified by the coachees as being one of the main benefits despite it not being a particularly highly requested area for support, pre-coaching. There is evidence to support the hypothesis that there is a relationship between students who remain motivated throughout their studies to increased academic performance (Bong, 2001 and Bandura, 1993). Bong (2001) also suggests that students with a strong sense of self-efficacy are willing to invest greater effort and persistence in completing challenging tasks. Bandura (1993) states that where students display low academic self-efficacy, they are also more likely to lose motivation and spend less time studying for tutorials. If increased motivation is found in students who receive coaching as well as increased self-efficacy then this too is more likely to have resulted in improved academic attainment.

5. Engagement with Tutor Feedback

It was also shown in Chapter 4 how the peer coaching process helped facilitate the coachee to incorporate tutor feedback into subsequent assignments. Giving feedback to the coachees was also seen by the coaches in Chapter 5 as being beneficial for them in their own personal development. Student engagement with

feedback has been identified as an area for improvement (Price, Handley and Millar, 2011). If peer coaching can support students with this process and bridge the gap between understanding and incorporating feedback, it could be considered a valuable intervention to improve this issue too. The Sander and Sanders (2009) ABC questionnaire does not include any items to ascertain at what level students are engaging with tutor feedback. If this is seen to be instrumental to academic success then it may be prudent to incorporate some measures to determine levels of engagement with tutor feedback in further studies.

Price, Handley and Millar (2011, p891) suggest that the ability and willingness of students to make progress is 'dependent on the extent to which they understand the feedback and on their self-efficacy'. They go on to say that students often 'need reassurance about their understanding of the feedback'. The peer coaching has been seen to improve self-efficacy and the coaches also reported giving reassurance as part of the peer coaching process in the focus groups sessions reported in Chapter 5. In addition, the peer coaching at SE University is designed to signpost coachees to seek clarification with their tutors when required. These factors could then also be considered as significant in promoting this beneficial dialogue between tutors and students.

Summary

The qualitative and quantitative data has corroborated to show that the peer coaching has impacted on the students in a number of ways from increasing motivation, enlightenment about the requirements of their course as well as increasing their academic behaviour confidence. All these factors are likely to have impacted on the academic attainment of the students who received coaching. As the comparable grades of the non-coached control group did not increase to the same degree as that of the coached group, it would seem likely that this increase could be attributed to the peer coaching intervention.

It was also seen in the qualitative findings presented in Chapter 5 that the coaches too reported increased confidence in their own academic attainment through being a coach. However this was self-reported, anecdotal data which was not measured quantitatively by means of the Sander and Sanders (2009) ABC scale in this study. Coaches also indicated an improvement in their own academic achievements

through being a coach although, again in this study the module grades of the coaches were not explored.

It can be seen that there are benefits from the peer coaching intervention at the case study institution particularly where a dedicated team is already in place to deliver it. It might also be considered as a means to achieve a number of other aims in addition to the intended aim of increased academic attainment of the students. The peer coaching intervention as reported in Chapter 5 could be seen as increasing the motivation and confidence of the students being coached. In Chapter 6 it was seen to perhaps help combat attrition although this link is not evidenced.

Whilst the qualitative and quantitative data appear, to a greater extent, to concur, student perception of the impact on academic performance is greater than the actual impact seen in module grades. The qualitative results overall were found to validate the quantitative findings.

It has been seen in the case study institution to have significant benefits for all those involved. It is worth remembering however that there is a dedicated team for delivery of the programme with robust procedures in place for coach and coachee recruitment and support that not all higher education institutions will have in place. SE University was unique in having a sizeable and dedicated coaching and mentoring team for delivery of several coaching and mentoring programmes. This allowed for robust coach and mentor recruitment, training and coachee/mentee induction. Andrews and Clark (2011) recommend that higher education institutions should consider implementing 'peer mentoring' as part of their retention and success strategy but go on to suggest that a well-structured programme with a dedicated person or team should be in place to manage the programme. Andrews and Clark (2011) also recommend rigorous mentor selection and training as well as mentee induction and on-going supervision. It is likely then, that for any peer coaching intervention to be successful, adherence to similar guidelines such as this will be a key element.

The final chapter explores the implications of the study for higher education policy, and strategy for other institutions. It also discusses the implications for coaching practice and theory.

CHAPTER 8

Discussion and Conclusion

The aim for this study was to explore how peer coaching contributes to the academic attainment of higher education students. It sought to analyse student perceptions and actual academic attainment prior to and following a peer coaching intervention and to compare those findings to that of a control group who did not receive peer coaching.

Whereas Chapter 1 gave the background to the study, Chapter 2 explored the literature on peer support interventions within a higher education context. It was found that whilst there was abundant literature to evidence the benefits of peer support and in particular mentoring, there was room for further study using more robust and quantitative methods to explore impact on academic attainment and a need for more explanation of peer coaching. The review also revealed the lack of clarity in the definitions of different peer support interventions. Chapter 3 explained the methodology used and set out the strategy for this mixed methods study which included the use of a control group of non-coached participants for comparison with those who received peer coaching highlighting the difficulties in control group selection. Chapter 4 provided case stories to define the peer coaching process, whilst Chapter 5 presented the student perception data from both the coachees' and the coaches' perspective. This qualitative data demonstrated that both the coachees and the coaches perceived to have benefited in a number of ways including improved academic performance as well as increased confidence and motivation. Chapter 6 presented the quantitative module grade data showing that the coachees had attained statistically significantly higher grades, in particular for first year and business school students although the perception data presented in the previous chapter would have suggested that the impact would have been greater. Chapter 7 explored the different data collected showing that the quantitative and qualitative data complemented each other, verifying the findings. It also highlighted the implications of the findings for the case study institution.

This final chapter explores the impact of peer coaching for different groups of higher education students and reviews the possibilities for implementation within other higher education institutions and beyond. Also discussed are the weaknesses in the

study that may impact on the robustness and transferability of the findings as well as making suggestions for further research.

The implications of the findings have been arranged into five themes:

1. Clarity in the definition of the term 'peer coaching'
2. Increased academic behaviour confidence
3. Impact on students from different disciplines and backgrounds
4. Improved academic attainment
5. Improved student satisfaction scores and reduced attrition

1. Clarity in the Definition of the Term 'Peer Coaching'

This study has provided a clear process and definition for the peer coaching intervention at SE University which was described in the introduction and then made explicit through the use of the case stories in Chapter 4. The intervention and nature of the peer coaching support described the process in detail. It was seen that due to the coaches being new to the role and having limited experience not all of the coaching practice was non-directive as taught and anticipated. There have been anomalies in the terms used in previous literature, for example defining mentoring as pre-determined group sessions where the more commonly accepted process is for one to one meetings. Fox and Stevenson (2005) had, for example reported increased academic performance in Accounting and Finance students through peer mentoring although the intervention comprised of group work as opposed to a one to one relationship.

As well as a lack of clarity in the process, there has previously been much confusion in the terms used to describe coaching and mentoring highlighted by D'Abate, Eddy and Tannenbaum (2003) and Stober and Grant (2006). In this study the process is clearly defined so as to leave no doubt regarding the peer coaching intervention.

As well as describing the peer coaching intervention, the process for delivery and the adopted practices within the case study university have also been thoroughly defined. Both coaching and mentoring are embedded at SE University using the guidelines recommended by Andrews and Clark (2011) and the programmes are supported by academic staff. However such uniqueness may possibly limit the transferability of the findings of this study to other higher education institutions that may not have such processes and practice in place. If similar practices are adopted

within another higher education institution however, it should be possible to replicate the findings. As the peer coaching process adopted at the case study institution appears to have impacted on the academic attainment of higher education students then the model used at this institution may be deemed suitable for others to utilise. A model definition could be described as seen in box 8.1.

A facilitative, goal focused relationship usually between a more experienced and less experienced person where the emphasis is on asking open questions, listening, negotiating targets to both empower and promote self-efficacy in the coachee. The coach would ideally refrain from 'advice giving' and the overall goal and agenda for the coaching sessions are ideally set by the coachee.

Box 8.1 Definition of Peer Coaching in Higher Education

Obviously in the wider context, different definitions have already been identified and described in the literature review such as Donegan, Ostrosky and Fowler (2000) and Ackland (1991) who identified two different types of peer coaching as the 'expert' and 'reciprocal' models. This definition could be used as an alternative to the 'share and compare' model described by Parker, Hall and Kram (2008) where the participants are equally experienced.

In this study, the support of a more experienced peer was seen to be particularly valuable. This might be described as the 'expert' model by Donegan (2000) and Ackland (1991). Black and MacKenzie (2008) had found previously that the 'horizontal' strand of peer support was ineffective in improving study skills and assignment preparation although did have other more social benefits. This could be an indication that the 'vertical' strand as used in this study, as described by Black and MacKenzie (2008) is most effective when implemented for the purpose of raising academic attainment.

The debate surrounding a definitive definition of coaching is likely to continue but it would be useful for higher education institutions to have some clarity in this if they are to include such a provision for their students.

2. Increased Academic Behaviour Confidence

The aim for the study was to explore the impact and any difference in academic attainment of students who had been coached and those who had not. The findings

show that, in the view of the participants who received coaching, they had benefitted in a number of ways. This ranged from being more motivated to continue with their studies and achieving better grades to feeling more confident in doing so. As shown in Chapter 5, it was apparent that many of the students who were in receipt of coaching claimed to be achieving higher marks or grades, attributing this to their coach. Increased academic confidence in students has already been found to be desirable as they enjoy their studies more (Putwain and Sander, 2014) and are therefore more likely to complete their course (Robbins *et al.*, 2004). Whilst other studies on peer mentoring have highlighted an apparent self-reported increase in confidence in the mentees, increased confidence as a result of peer coaching has not, so far, been reported in a higher education context. Whilst increased confidence was not one of the intended aims or objectives of the peer coaching intervention at SE University, it seemingly occurred as a consequence of the peer support offered and should be considered as a possible benefit of the peer coaching intervention. If academic peer coaching can achieve improved academic confidence leading to improved retention then it could be an investment of resources for other higher education institutions to consider.

It was seen that over a period of time, the module grades of those who received peer coaching improved to a somewhat greater extent those in a control group who had not. The impact was greater for those students in their first year and the coached students had also reported improved time management and organisational skills. When it is taken into consideration that the improved self-efficacy and academic skills learned in the first year can be utilised in subsequent years of study, it might be deemed prudent for higher education institutions to direct resources to students in their first year. It has already been suggested by Bowden, Subhash and Bahtsevanoglou (2014) that early intervention for higher education students should be utilised to combat the difficulty of over-confidence leading to a negative relationship between self-efficacy and final marks. It was seen from the qualitative evidence and case stories within this study that the coachees learned other important study skills such as how to structure essays and organise their time effectively through the peer coaching. Once mastered, if these learned skills do continue to impact into subsequent years as was seen in other studies such as O'Donovan, Price and Rust (2004) and Nicol (2009) it may even contribute to later academic success and final degree attainment.

Further study would also be useful to determine not only in which year peer coaching may prove most useful but also to explore the optimum time of year to introduce such an intervention. It was seen in Chapter 6 that the peer coaching was offered at SE University towards the end of semester A as exams were approaching. For some students who applied late for a peer coach, it was not possible to fit in the intended full 10 weeks of coaching. It may be that if the intervention were offered earlier in the year, the impact on academic performance may be even greater. However there are many other factors to be considered such as the students being able to recognise the need for academic support if it were offered earlier. It was seen from the case stories in Chapter 4, for example, that some students applied for coaching when they had failed modules, under-performed in their coursework or not met their academic expectations. Offering the intervention earlier may possibly result in fewer peer coaching applications if students are as yet unaware of the need for it. These findings could be important for programme managers wishing to implement a similar programme in helping to target those students who might benefit most. It may also help in planning the introduction of such a programme at a time when students may have more awareness of the need and therefore perhaps more motivation to engage. This might be as exam results or course marks are awarded, particularly when students have not performed as well as expected. It is also possible that appropriate students could be targeted for inclusion by programme tutors, particularly those who are in danger of failing as there was seen to be an indication that these students benefit most from the peer coaching intervention.

3. Impact on Students from Different Disciplines and Backgrounds

Other higher education institutions will have different students from a variety of different backgrounds which might also impact on the transferability and generalisability of the findings. This study incorporated a mixture of students from several different disciplines demonstrating increased academic attainment overall in those who received peer coaching compared to those who did not. The control group contained a proportionally mixed group of students so as to make a relatively robust comparison. Whilst the selection of the control group in this study was impeded by similar constraints encountered in previous studies the larger sample sizes do allow for an overall degree of confidence to be held in the findings. For the case study institution, the impact on overall average grades was seen to be greatest within the business school as discussed in Chapter 6 although the reason for this could only be

speculated. There is, however, no reason to suggest that peer coaching could not be as effective within other disciplines and within other higher education institutions. Further exploration may be required to determine the reasons for this difference in impact on different students. It may be useful to determine the impact of a quality coaching programme on different disciplines to measure impact on motivation, academic attainment and confidence.

If the provision of peer coaching is demonstrated to have improved the academic performance of undergraduate students then the possibilities for its implementation are plentiful. If peer coaching can enlighten students, give them more realistic expectations for their studies and combat academic over-confidence then it could also be particularly useful for students from a widening participation background who have less cultural capital.

Other groups of students who could benefit from this type of intervention are those from black and minority ethnic (BME) groups who reportedly underperform in higher education. Data collected by the Equality Challenge Unit, (2009) and reported by Berry (2009) suggested that the national attainment gap between BME and white students was 18.3%.

Whilst this study incorporated a mixture of students from different programmes of study, it was found to be more impactful, in terms of academic performance, for certain students. There was an indication that it may have been particularly beneficial for male students and those in their first year of undergraduate study. Specific data however on ethnic background was not collected to allow any exploration of the impact of peer coaching for these particular students. Future studies may wish to include data collection on ethnic background to ascertain whether similar impact can be found for BME students in order to narrow this attainment gap.

Peer coaching may also be a worthwhile intervention for post graduate study. This aspect has already been explored by Medd (2012) who reported possible benefits in supporting researcher performance but suggested a need for more case studies. Findings such as this would add to those from this study and be particularly helpful in the planning and implementation of strategies within higher education institutions seeking worthwhile interventions to improve student attainment.

4. Improved Academic Attainment

Chapter 7 highlighted the increased academic attainment seen in the students who were coached compared to those who were not. Although this was a small but statistically significant increase, it is nonetheless an increase in academic attainment and the peer coaching intervention was seen to be a likely contributory factor. Even a slight increase in individual student academic attainment may positively affect the overall performance ratings of a higher education institution if there are significantly large enough numbers of students affected.

It was seen in Chapter 7 that the students' perception of performing better academically was greater than their academic grades would suggest. In addition it was seen from the pre and post-coaching data in Chapter 5 that there may have initially have been some unrealistic expectations regarding their academic attainment. This may due to a lack of 'self-awareness'. Perhaps those who seek coaching have a better understanding of their developmental needs or perhaps they have more ambition to succeed. These possible influences were not tested for in this study either for the coached or control group and so cannot be factored in. Had these confounding variables been accurately collected and factored into the statistical analysis then more confidence may have been held in the findings. However as suggested by D'Agostino and Kwan (1995) these biases are difficult to determine with accuracy and reliant upon a researchers ability to identify them. As a researcher I was unable to identify exactly what these biasing variables might have been. As was discussed in Chapter 2, there were a number of possible influences identified such as prior academic attainment and non-cognitive skills but these could not be determined with any sense of accuracy nor their degree of influence on academic success. It can be argued however that those in the control group were subject to the same influences as those in the coached group although this type of perception and background data was not collected in this study for this area to be explored further.

The variety of ways in which the peer coaching was utilised by the coachees was also presented in Chapter 6. In further studies it may be useful to determine the most useful aspects of peer support for particular students or disciplines. Exploring student needs or perceived needs may be valuable in determining which types of support are best utilised within a higher education institution. Whatever the disposition of the student however, the peer coaching can be evidenced to have

positively impacted on the academic performance and academic behaviour confidence of those who were coached.

It was seen in Chapter 6 that there was a difference in the academic attainment of male and female students. Male students in the control group who did not receive the coaching made less academic progress than those who were coached. Whilst this study could not determine why the academic performance of the males who were coached was significantly better than those who received no coaching, it was clear that males who received coaching performed better than those who did not. It could have been an indication that male students fare less well when they have no supportive intervention. It is noteworthy however that a larger proportion of females participated in the peer coaching in this study. This concurs with previous studies such as Grebennikov and Skaines, (2009) and Anastasia, Tremblay, Makela and Drennen (1999) who suggest that male students are less aware of opportunities for self-development and consider personal support as less important than female students. Whilst more women currently make up the entire student population, nearly 57%, there has been a recent increase, within the last three years, in the percentage of male students, from 42.5% to 43.1% (Berry, 2011). Despite this, it has been estimated that the UK will have the second highest concentration of women in higher education and by 2025 women could outnumber men by 2:1 (Vincent-Lancrin, 2008). It may be that to address or perhaps avert this imbalance, higher education institutions should invest in better targeting these types of interventions towards male students.

Gender differences have previously been explored in other peer support relationships. It had been found by Colvin and Ashman (2010) that women see relationship benefits from peer mentoring relationships whilst men see academic benefits. This has not particularly been the case in this study although the peer coaching was actively promoted within the case study institution as a means to raise academic attainment rather than for emotional support. It has been reported elsewhere that of those who complete their degree, men are less likely to attain a 'good degree' with 59% of them doing so compared with 64% of women (Higher Education Statistical Agency, 2010b). If this is the case then peer coaching could also be instrumental in evening out this imbalance. It may possibly be viewed by male students as a more acceptable form of support.

The findings from this study could be useful in particular for other higher education institutions when targeting different groups of students in order to improve their

academic performance. As was seen in Chapter 6, peer coaching was seen to be more effective for those in their first year of study and for those who were performing less well. It may be that resources should be directed at these particular groups.

Peer coaching could also be used to narrow the attainment gap between those who have been identified as under-achieving such as part-time students or more mature students. It has been reported for example that mature students are particularly vulnerable to non-completion as was reported by the Higher Education Statistical Agency HESA (2010). The quantitative evidence provided by the study supports the use of peer coaching as a means to raise academic attainment and could help higher education institutions to direct resources to groups of under-achieving students.

5. Improved Student Satisfaction Scores and Reduced Attrition

It was seen in Chapter 5 that there were increased student satisfaction scores in those students who received peer coaching. Increased student satisfaction can also impact on the overall reputation of a higher education institution. Gibbons, Neumayer and Perkins (2013) suggested that increased student satisfaction scores taken from the National Student Survey (NSS) correlate to an increased number of student applications. This increase in student satisfaction was moderate but statistically significant. Whilst it cannot be directly attributed to the peer coaching, it is likely to have contributed to the improvement seen from pre to post-coaching. This again was not one of the initial aims for the peer coaching intervention at SE University but a welcome benefit of the intervention. As higher education institutions compete to attract students and to maintain or increase their position in the league tables, this more unexpected outcome should not be ignored. The position of a higher education institution in the National Student Survey league tables is likely to have a strong impact on the attraction of potential students as reported by James, Baldwin and McInnis (1999). If good quality, peer coaching can improve student satisfaction scores as well as increase academic confidence and improve attainment for the coachees then it is an intervention worth consideration.

It has also been evidenced in other studies that peer support interventions can positively impact on student retention. It has been established by Astin (1984), Goodlad (1998) and Kur, Palmer and Kish (2003) that student involvement with their institution in interventions such as peer support can be used as means to reduce

attrition rates. It has been shown in Chapter 6 that those in the coached group had a lower attrition rate than those in the non-coached, control group. Improved retention has previously been reported as a benefit of mentoring and other peer support schemes (Andrews and Clark, 2011). Whilst coaching has been demonstrated to be effective in increasing hope, cognitive hardiness and in decreasing self-reported symptoms of depression (Green and Rynsaardt, 2007) it has not so far been linked to possible improved retention in higher education. Whilst these aspects were not the main focus for the peer coaching intervention at the case study institution, these additional benefits could all be considered important factors in enhancing the reputation of a higher education institution.

It was suggested earlier that the peer coaching had more impact for those in their first year of study. If attrition levels of students in their first year of study could be reduced then this could have beneficial financial benefits for higher education institutions. In Andrews and Clark (2011) study of what works with regards to student success in higher education, the financial implications of a student leaving prematurely was stressed. It was noted that not only the fees for first year are lost but also the fees in subsequent years which could equate to a figure of at least £24,300 of lost income based upon an annual fee of £7,500 over a three year course. This financial loss would be even larger in the event of losing a residential student.

Limitations and Areas for Further Research

There are a number of influences that may have been present in this study which are unknown. Participants may have received forms of support other than the peer coaching, for example. No data was collected for the socioeconomic group of the students or for levels of attainment prior to embarking on their higher education course. Prior academic performance is said to be a significant factor in academic attainment and is linked to self-efficacy (Pajares, 1997; Marsh and Craven, 2006; Marsh, 2007). As prior attainment or socioeconomic data was not obtained in this study, it was not possible to explore any additional impact that this may have had on the participants. As has already been discussed, being a student from a lower socioeconomic background can also impact on academic performance in terms of cultural capital and therefore in particular for widening participation students. This type of demographic data was not known or accounted for in both those who were

coached and those who were in the non-coached control group in this study. It might be presumed that both groups contained a combination of students from different backgrounds and from varying levels of attainment although no checks to verify this were made. In addition the selection of the control group was as such that it may have contained those students who were less motivated or ambitious than those who participated in the coaching. Further study could explore these possible influences as it may be that those from particular groups are more likely to participate in a peer coaching intervention than others. If this is so then it might have also impacted on the findings. Whilst there are no studies thus far to link academic behavioural confidence, such as self-concept and self-efficacy to predict future achievement and outcomes, this study has demonstrated a connection between improved academic behaviour confidence and academic attainment. This concurs with the previous findings of Putwain and Sander (2014).

Further study is also suggested using a similar methodological approach, incorporating the use of a control group although selection of the control group is likely to be problematic as it has been for this and previous studies. It would be of value to incorporate other factors, such as prior academic attainment upon entering higher education and socioeconomic backgrounds in the impact of peer coaching on academic attainment. A more longitudinal study would also be of benefit to determine whether the increased impact of first year students on academic attainment, which has been demonstrated in this study, continues or increases into subsequent years. As this study was limited to just one case study institution, it would also be of value to conduct a larger scale study to include multiple higher education institutions. If a similarly delivered good practice peer coaching programme was delivered in multiple institutions, it would provide larger numbers of participants and data to further verify the impact on academic attainment.

Another limitation of this study is the lack of post-coaching qualitative data for the control group. It was seen in Chapter 6 that there were significant gaps in the post-coaching data for this group and so comparisons could not be made with the pre-coaching data collected. This resulted in the absence of more qualitative data to enrich the quantitative data collected for this group. This drawback has also been experienced by others seeking to explore the impact of peer coaching such as Sanchez, Bauer and Paronto (2006) and Short and Baker (2010). In future studies perhaps measures can be put in place to reduce participant attrition in the control group particularly and ensure the collection of sufficient volumes of pre and post data

to make robust comparisons. In addition it might add value if focus groups or interviews were conducted with those in the control group to ascertain why they have not engaged or accepted the offer of peer support. This information could be useful for other institutions who are seeking to increase student engagement with such interventions.

Peer support in general has frequently been reported to be beneficial in the context of higher education. Whilst there are many variations in the delivery of such schemes, it has been shown in both this study in Chapter 5 and previous work such as Capstick, Fleming and Hurne (2004) that the support of a peer is particularly well received. Further study to compare impact on academic attainment through different peer support intervention would also be useful. There is some evidence to suggest that group interventions such as PALS have impacted on academic attainment (Ashwin, 2003) and it was seen in the review of the literature that similar impact was seen for some 'peer mentoring' programmes although the intervention was described as predetermined group work sessions (Fox and Stevenson, 2005). In this peer coaching study the one to one aspect of the support was reported by the coachees to be particularly valuable as was seen in Chapter 5. Further research to establish where a one to one intervention such as peer coaching might be more appropriate for particular groups of students than group work sessions could be useful in higher education institution strategy planning.

The concept of peer support being equally beneficial for both those offering the support as those being supported is not unrecognised whether it is as a mentor, coach or peer supporter. Benefits for coaches have been mentioned previously by authors such as van Nieuwerburgh and Tong (2012) who reported improved study and communication skills for the coaches. The data presented in Chapter 5 concurred and would suggest that the coaches in this study experienced similar benefits which is likely lead to improved employability in the coaches and further opportunities.

Gurbbut and Gurbutt (2015) also reported benefits for the coaches but in this case they were trained members of staff who were supporting the students. However they went on to report a possible flaw in the amount of time needed to train staff as coaches and to induct students that may not be so problematic in a peer coaching intervention. In addition the value of a 'peer' coach has already been seen to be of particular worth for the coachees in this study making a reasonable argument to select a 'peer' coaching intervention.

There was also some indication in the data presented in Chapter 5 to suggest that the coaches too, perceived to be performing better academically and had improved their study skills. As the coaches were recruited on the basis of having a good record of prior academic attainment (they were required to be achieving at least a 2:1) this reported academic improvement was again not a particularly expected outcome for the peer coaching at SE University. It may be that being a peer coach can lead to improved academic attainment in coaches too. This two-fold benefit found in peer coaching should be of particular interest to higher education institutions when considering student engagement and enhancement strategies. Future studies may also wish to consider investigating the impact on academic achievement in more quantitative terms for those who volunteer as a coach as this too would also be extremely valuable for any higher education institution considering this type of intervention.

Whilst measures were put in place to minimise bias in the interpretation of data by using triangulation methods and utilising co-researchers to verify the findings it would be difficult to eliminate all traces of partiality. It is however necessary to be reflexive when conducting research and researchers can aspire to be objective and remain detached but will likely have to accept that this is probably impossible to achieve. Finlay and Gough (2003) even suggest that many researchers will have a vested interest in their topic of study.

Becoming an external researcher at the time of data analysis, although relieving me of the possible implications of a negative result of peer coaching that showed no improvement in student grades with the ensuing repercussions for my role at the case study institution, it could not completely eliminate any bias. Even as an external researcher I remained a practitioner of coaching and as such would still inevitably be biased towards a positive result. This too may have been the case for the co-researchers used to analyse the data who remained in employment at the case study institution at the time.

Goffman (1989) however argues that the researcher's identity is as much part of fieldwork as the worlds that one studies. He suggests that attempting to remove it from a given context could actually impact on the quality of the study. Whilst every attempt was made to remain unbiased in the analysis and interpretation of data, despite these efforts perhaps some bias remains. In the light of these caveats it is essential that readers make their own judgement and evaluation of the methods and merits presented in the study as suggested by Agudo and Gonzalaz (1999).

Whilst this study was conducted within a higher education institution there is no reason to suggest that these types of benefits gained through peer coaching could not be attained in other educational institutions such as Further Education Colleges and schools. The concept of peer coaching could perhaps be replicated in other educational institutions thereby encouraging the transfer of study skills from one more experienced student to another.

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APPENDICES

APPENDIX 1 - Control Group Advertisement

Would you like to contribute to the knowledge of peer coaching in Higher Education institutions?

You may have recently seen the opportunity to participate in a Peer Coaching programme being delivered at the University [REDACTED]

This peer coaching programme is the subject of a research project, the aim of which is to establish whether peer coaching contributes to the academic achievement of higher education students.

If you did not apply for the peer coaching programme but would still like to contribute to the research you are invited to do so as a non-coaching participant. There is very little that you need to do in order to take part in this capacity and you can withdraw at any time. You can also change your mind and apply to be a coach or a coachee.

For further details please contact Jill Andeanoff on 12012442@brookes.ac.uk

APPENDIX 2 - PARTICIPANT INFORMATION SHEET (for control group)

Study Title

December 2013

In what ways can peer coaching contribute to the academic attainment of higher education students?

You are being invited to take part in a Doctorate in Coaching & Mentoring research study which aims to establish whether peer coaching contributes to the academic achievement of higher education students. This study is being funded by the Outreach & Widening Participation Department at the University of [REDACTED]. Before you decide to take part it is important that you understand why the research is being conducted and what is involved. Please take the time to read the following information carefully before deciding to take part.

As you have elected not to take part in the University of [REDACTED] Peer Coaching programme either as a coach or a coachee you are also invited to contribute to this study. By agreeing to do so you may be asked to give your views on why you elected not to participate in the peer coaching programme. Participation is entirely voluntary. However, should you decide at any stage of the process to withdraw from the research you will be able to without giving any reason. If at any time you wish to apply for the Peer Coaching you may do so at any time even if you initially declined the offer.

In addition to this I would like permission to access your student record in order that your academic progress can be monitored.

It is envisaged that approximately 400 students in total will take part in this study and every student at the University of [REDACTED] will be invited to whether they choose to do so as a coach or a coachee or a non-coaching participant.

Participation or subsequent withdrawal from this study will not impact in any way towards the awarded marks for your course assignments or exams.

Taking part as a non-coaching participant in the programme is of course done so on a voluntary basis. There will be no costs involved for you.

By taking part in this study you will contribute to the knowledge of peer coaching in Higher Education institutions.

What happens if I take part?

Should you decide to take part in the research you will be asked to sign a consent form allowing access to your student record in order that your academic progress can be monitored. This will comprise of module grades from both Semester A and Semester B from the year 2013/14.

Should you decide to take part in the research you may be asked your views via a questionnaire on the peer coaching programme and the reasons why you elected NOT to apply. This questionnaire should take no more than 20 minutes to complete. There is nothing further that you will need to do.

Students who elected to be coached will also be asked to complete questionnaires and have their academic grades monitored and the coaches too will also be asked their views.

There are no perceived risks in participating in this study.

Confidentiality

Any information that you provide will be kept strictly confidential (subject to legal limitations). Any hard copy forms will be kept in a locked cupboard and electronic documents in a pass- worded folder.

All collected data will be de-identified and you will not be individually identifiable in the findings whether published or unpublished. The data that you provide may also be used for coaching programme evaluation purposes by the University of [REDACTED]

You should be aware that data generated by the study must be retained in accordance with Oxford Brookes University's policy on Academic Integrity and has to be kept securely in paper or electronic form for a period of 10 years after completion of the research.

This data will be used as part of a doctoral thesis and you can request a copy of the completed version if wished. The research is being conducted as a doctoral student at Oxford Brookes University but the study will be taking place at the University of [REDACTED] as part of the Outreach & Widening Participation Mentoring & Coaching activities (Office of the Dean of Students). A summary of the results will be made available, upon email request, to Jill Andreanoff at the email address given below by the end of September 2016.

The research has been approved by both the University of [REDACTED] and Oxford Brookes Ethics Committees.

What should I do if I decide to take part?

If you wish to take part in the research then you will need to complete and sign the consent form provided and return to Jill Andreanoff. You will then be contacted during the next few weeks and invited to complete a short questionnaire.

Further Contacts

Should you have any concerns about the way in which this study has been conducted please contact Jill Andreanoff on 12012442@brookes.ac.uk or the Chair of the University Research Ethics Committee for Oxford Brookes on ethics@brookes.ac.uk

The study is being supervised by Dr Elaine Cox, Director of Post Graduate Coaching & Mentoring Programmes at Oxford Brookes University who can be contacted on ecox@brookes.ac.uk or Telephone : 01865 488350.

Or Dr Christian Ehrlich, Senior Lecturer, Oxford Brookes – cehrlich@brookes.ac.uk

Or Dr Judie Gannon, Principal Lecturer, Oxford Brookes - jmgannon@brookes.ac.uk

Additional Information

Should at any time during the research process you decide that you would like to take part in the coaching programme after all either as a coach or a coachee you are welcome to apply. This will be subject to the usual select criteria for a coach and to a coach being available if applying as a coachee).

More details on the coaching programme can be found at [REDACTED]

Thank you for taking the time to consider taking part in the research

University of [REDACTED] Protocol Number: EDU SF UH 00023. Granted by Social Sciences, Arts and Humanities ECDA Chairman

APPENDIX 3 - Coach Training Schedule

PEER COACH TRAINING - Based on a group of 20 participants with 2 tutors or up to 12 participants and 1 tutor

AIM To introduce the participants to the skills of coaching, communication skills and confidentiality & disclosure. To prepare participants for issues that they might face during their sessions and to have explored the various stages of coaching.

OBJECTIVES By the end of the session participants will:

- have familiarized themselves with the aims of the peer coaching programme and the skills required
- have set ground rules for the training days and for working with learners
- have discussed different types of supportive relationships and thought about the nature of a coaching relationship
- have participated in exercises exploring different types of communication
- have learned about specific listening and questioning skills
- be aware of the importance of body language
- have explored value judgements
- be aware of the importance of confidentiality and disclosure
- be aware of how coaching progresses through various stages and how to recognize them
- be comfortable with setting targets, and giving and receiving feedback
- have studied and discussed relevant case studies

CONTENT	METHODS	TASK	MATERIALS
1.Introductory session: <ul style="list-style-type: none"> • Register • Introduction • Agenda • Selection process • Programme specific training 	Roll call Names & roles Printed agenda & rooms	(15 min) <ul style="list-style-type: none"> • Call register • Introduce members of team • Distribute agenda • Introduce Aims & Objectives for the coaching programme • Explain that final selection for participation on programme will be based on observation of participants over two days of training + assessment 	Attendance register Agenda Laptop Projector Screen
2. Icebreaker Group session	Participants get to know each other - discussion	(15 min) Break into pairs with someone you don't know. Find out the following information, but do not write it down (suggested questions): <ul style="list-style-type: none"> • Who are you/where are you from? • What are you studying? / Where do you work? • What attracted you to be a coach? • One person you would like to meet and why • What is your best quality? 	Laptop Projector Screen

		<ul style="list-style-type: none"> • One thing you disagree on • What is the best thing you ever learned about University? <p>Partner introduces and feeds back info to whole group</p>	
3. Concerns	Individual work	(10 min) Participants write each concern they have regarding coaching programme or the training on Post-it. Stick them on wall. To re-visit on day 2	Post-its
4. Ground rules/setting the boundaries Group session	Brainstorm	(10 min) Ask group for suggestions to set the ground rules for the training. Ask what needs to happen in order for the training to be successful eg. for them to learn the skills and for you to impart all the information they need and for it to be enjoyable for everyone. Scribe onto PowerPoint. Distribute Ground Rules hand out Discuss whether these ground rules are also appropriate within a coaching relationship. Ensure that the issue of confidentiality/disclosure as well as collusion and plagiarism are covered in discussions. Introduce 'Agreement' and stress importance of using it.	Laptop Screen Ground Rules hand-out Agreement Collusion/Plagiarism handouts
5. What is coaching? Group session	Group work Card exercise	(30 min) Divide group into 3-4. Each group is given 20 skills cards to divide into 4: least important to most important attributes/knowledge for a or coach to have. Skills Cards (x20) examples: Listening, Questioning, Counselling, Exploring options, Knowledge of university/organisation, Honesty, Advice Giving, Subject Expert etc etc . After 15 mins move around to other tables to see the differences between the answers. Point out most are relevant (apart from counselling and advice giving) but are used at different times within the different stages of coaching. Cards such as Subject Expert and Knowledge of University should rank lowest. Group discussion. Define or 'coaching'. Give existing examples of definitions.	Skills cards Example definitions of Coaching P/Point slide definitions
6. Building a relationship	Small-group work	(20 mins) Divide into four groups. Each group discuss what constitutes a good relationship	Flip-chart paper Markers

Group session		<p>between any combination of the following and record ideas on flip-chart paper</p> <ul style="list-style-type: none"> • Parent-child • Tutor - Student • Friendship • Line manager - employee • Romantic relationship <p>Stick pages on wall and one member of each team guides the whole group through their thought processes. Compare similarities and differences. Define the coaching relationship.</p> <p>Alternative: Tick lists of 10 X statements about coaching on A3 sheets. Participants either tick or cross whether they agree with them or not. Group discussion. Examples of statements: A peer coach should be a friend, A coach should regularly check that the coachee has achieved good grades, A peer coach should keep the mentees tutor updated on their progress. Statements should be deliberately contentious to promote discussion.</p>	<p>Blutack</p> <p>10 X A3 sheets with coach statements</p>
7. Assumptions	Exercise Trainer-group interaction	<p>(10 mins)</p> <p>Participants are invited to say what their initial perception of the trainer was, having been given no background information (what their hobbies might be, pet owner etc). Participants then invited to ask some questions to discover if their perceptions were correct. Discussion on how we all make pre-judgements which are in some cases totally inaccurate and best avoided when coaching.</p>	
8. Communication – speech Group session	Exercise Work in pairs	<p>(20 min)</p> <p>Sit in pairs, back to back. A is given a picture card and describes it for B to draw. Only geometric descriptions allowed to describe the picture. B is not allowed to speak or ask questions. Simple line drawings of cat/duck, tree, house etc to be distributed. Use the experience to demonstrate the difficulties in communication when deprived of the ability to ask questions, clarify and see body language except where there is a shared knowledge/experience of a drawing.</p>	<p>Picture cards</p> <p>Paper</p> <p>Pens/pencils</p>
9. Listening skills Group session	Exercise in pairs	<p>(20 min)</p> <p>Split group in 2. Group A leaves room and thinks of a favourite holiday to discuss. Group B instructed firstly to listen intently to partner, and on cue (finger click/cough) to stop listening or showing interest. Group A returns and group divides</p>	

		<p>into A&B partners. A tells B story. General discussion. What were the differences? Skills noted for good listening : listening, eye contact, questioning, nodding, clarifying.</p>	
10. Listening skills	Questionnaire	<p>(10 min) Participants complete a listening skills questionnaire and reflect upon their areas for development</p>	Listening skills questionnaire.
11. Communication - body language	Group task and 2 X Volunteers	<p>(15 min) Body Language - slides/photos/videos of people interacting to discuss what they can observe Seating for coaching - volunteers arrange seating as if for a coaching sessions - group discussion - discuss gender differences in arrangement and appropriateness of using a table etc</p>	<p>Laptop Projector Screen Body language slides and handouts</p>
12. Listener/speaker/observer	Exercise in 3s	<p>(20 min) Groups of 3: listener/speaker/observer (15mins)</p> <ul style="list-style-type: none"> • Speaker: talk about someone who was an influence on you • Listener listens, asks questions etc • Observer takes notes on what works, what doesn't, pauses, reactions, going off on a tangent etc and gives feedback. <p>Change position so that everyone experiences each. Feedback (5 mins each)</p>	<p>Paper & pens Flipchart & pen</p>
13. Questioning Group session	Group Individually Pairs	<p>(20 min each activity)</p> <ol style="list-style-type: none"> 1. Identify types of Q's (reflective, hypothetical, probing, clarifying, multiple, rhetorical, open/closed etc) - ask group to identify them and state if they are useful coaching. 2. Questioning skills sheet - poor questions for participants to rephrase 3. Work in pairs (find out interesting facts about your partner who is deliberately uncommunicative) swap roles 	<p>Powerpoint of different example questions -. Questioning handout/re-phrasing exercise</p>
14. Value judgements Group session	Trainer led exercise	<p>(15 min) Values Aim: to enforce concept that everyone has different values, that life experiences affect your decisions and opinions; do not make judgements. Set up three stations: yes/no/don't know Read out questions and participants go to station they agree with.</p>	

		<ul style="list-style-type: none"> • Would you ride a motorbike? • Would you read someone's diary? • Would you have an affair? • Would you tell a friend if their partner was having an affair? • Would you keep a £20.00 note if you found it on a supermarket floor? <p>Participants explain the reasons for their choices whilst others listen and respect their opinions.</p>	
15. Disclosure Group session	Case studies	<p>(20 min)</p> <p>Divide into groups. Give 3 different case studies to discuss that suggest the following possible issues.</p> <p>Self-harmer, eating disorder, feeling suicidal, taking drugs etc etc</p> <p>Groups feedback on whether they would 'disclose' in each scenario</p>	Laptop Projector Screen Case studies (Child Protection Guidelines if appropriate)
16. Common issues Group session	Group Individually	<p>(20 min)</p> <p>Acetates with common issues and flipchart paper on walls. Participants go around individually and write down on the flipchart paper possible courses of action/questions to ask to deal with the common issues.</p> <p>Examples - My coachee keeps arriving late to our sessions; My mentee is very talkative taking the focus away from the subject in hand; Although my mentee comes to the sessions they are uncommunicative; I don't think my coachee is being entirely honest about their coursework results. Group feedback.</p>	
17. Goal Setting Feedback Group Session	powerpoint	<p>(15 min)</p> <p>Explanation of Kolb's theory of experiential learning and how this relates to the four stages of a coaching relationship. The coach facilitates this learning process.</p> <p>Explain SMART targets.</p> <p>Give participants good & bad examples of completed logbooks on powerpoint.</p>	Kolb handout SMART targets presentation Sample logbook on powerpoint. Laptop Screen Projector
18. Feedback Group Session	Exercise in pairs	<p>(20 min)</p> <p>In pairs A tells B about something that really irritates them and why (people littering in the street, smoking in cars etc) whilst B listens. B then feeds back all the positive information that they have gleaned to A.</p> <p>Powerpoint on giving and receiving feedback - how to maintain self-esteem and the importance of obtaining and dealing with regular feedback from your learner.</p>	Powerpoint

19. Preparing for the 1st session Group session	Trainer led discussion	(10 min) Group should be asked to reflect on what they would like to know about THEIR coach prior to meeting them if they were to apply. What preparation is required for the 1 st session? Ensure that the point is made that they should not have too much information on their learner prior to meeting but to allow them to tell their ‘story’ and ambitions in their own words.	Laptop Projector Screen
20. Coach promotion Group Session	Powerpoint Group Individual	(15 min) Show examples of poor coach profiles. Ask why they are poor. Show good examples and stress importance of honesty and learner perspective when selecting the coach of their choice. Distribute profile form for participants to complete	Blank profile forms
21. Coaching tools Group Session	powerpoint	(10 min) Demonstrate some common coaching tools and some contexts in which they could be used.	Coaching toolkits
22. Applying tools to common issues Group session	Group discussion and feedback	(20 min) Using acetates and flipchart paper from previous session, participants re-visit the common issues and in small group suggest a SMART target that could be set and two possible coaching tools that could be used in that context.	Acetates Flipchart paper. Different coloured pens.
23. Planning/delivery of group sessions	Group activity and feedback	(30 min) In small groups each is given a topic and a planning proforma sheet and is tasked with writing a one hour session plan which is then fed back to the rest of the participants for comments/feedback. Suggested topics: essay planning, referencing, using HEI intranet, accessing journals, managing time, revision techniques. Each session should have an ice breaker, clear aims and objectives, activities and a plenary session all with allocated timings.	Session planning sheet with sections for aims/objectives, ice breaker, activities and plenary session.
24. Real play Group session	Work in 3’s	(40 min) Real play mini coaching session using a real issue to include a SMART target or use of a coaching tool if possible using observation and reflection sheets. Rotate so that each person has the opportunity to be a coach, a learner and an observer. The observer gives appropriate feedback to the coach following each practice session.	Observation and reflection sheets

25. Assessment	Individual	(30 min) Each participant given a short scenario and asked to write down how they would deal with it. The answers should incorporate examples of questions that they would ask, possible SMART targets and suggested coaching tools that could be used.	Assessment scenarios/answer sheets plus assessment criteria.
26. Plenary	Whole group	(15 min) Review of post-it notes from Day 1 - are the concerns still valid? Further training requirements Collect feedback/evaluation Explain next steps (when they can expect to be matched)	Evaluation form Further training dates/supervision dates hand-out

APPENDIX 4 - PARTICIPANT INFORMATION SHEET (for coachees)

Study Title

December 2013

In what ways can peer coaching contribute to the academic attainment of higher education students?

You are being invited to take part in a Doctorate in Coaching & Mentoring research study which aims to establish whether peer coaching contributes to the academic achievement of higher education students. This study is being funded by the Outreach & Widening Participation Department at the University of [REDACTED]. Before you decide to take part it is important that you understand why the research is being conducted and what is involved. Please take the time to read the following information carefully before deciding to take part.

As you have elected to take part in the University of [REDACTED] Peer Coaching programme as a coachee you are therefore also invited to contribute to this study. By agreeing to do so you will be asked to give feedback on the coaching process from your perspective and how it affected your academic attainment. Participation is entirely voluntary. However, should you decide at any stage of the process to withdraw from the research you will be able to without giving any reason.

In addition, I would like permission to access your student record in order that your academic progress can be monitored for the duration of the study. It is envisaged that approximately 400 students in total will take part in this study and every student at the University of [REDACTED] will be invited to whether they choose to do so as a coach or a coachee or a non-coaching participant.

Participation or subsequent withdrawal from this study will not impact in any way towards the awarded marks for your course assignments or exams. **Deciding against taking part in the research will not in any way affect your participation in the Peer Coaching programme. Your participation in the research is entirely voluntary.**

There will be no costs involved for you.

However as well as contributing to the knowledge of peer coaching in Higher Education institutions, taking part in this peer coaching research should also be a rewarding and enjoyable experience for you, enabling you to reflect on your experiences.

What happens if I take part?

Should you decide to take part in the research you will be asked to complete a questionnaire both pre and post-coaching; each should take no more than 20 minutes to complete. This can initially be completed at the same time as you apply for a coach. You will also be invited to be part of a 1-2 hour focus group on campus once you have completed the coaching programme which will be audio recorded – not videoed (in order that the information can be transcribed and analysed at a later date). There are no perceived risks in participating in this study.

In addition to this your academic attainment, in the form of module grades will be accessed from your student record in both Semester A and Semester B over the period of time that you received the coaching. This is likely to be a 10 week period.

Students who elected NOT to be coached will also be asked to complete questionnaires and have their academic grades monitored and the coaches will also be asked their views.

Confidentiality

The information that you provide will be kept strictly confidential (subject to legal limitations). Any hard copy forms or questionnaires will be kept in a locked cupboard and electronic documents in a pass-worded folder.

All data will be de-identified and you will not be individually identifiable in the findings whether published or unpublished. The data that you provide may also be used for coaching programme evaluation purposes by the University of [REDACTED]

You should be aware that data generated by the study must be retained in accordance with Oxford Brookes University's policy on Academic Integrity and has to be kept securely in paper or electronic form for a period of 10 years after completion of the research.

This data will be used as part of a doctoral thesis and you can request a copy of the completed version if wished. The research is being conducted as a doctoral student at Oxford Brookes University but the study will be taking place at the University of [REDACTED] as part of the Outreach & Widening Participation Mentoring & Coaching activities (Office of the Dean of Students). A summary of the results will be made available, upon email request, to Jill Andeanoff at the email address given below by the end of September 2016.

The research has been approved by both the University of [REDACTED] and Oxford Brookes Ethics Committees.

Further Contacts

Should you have any concerns about the way in which this study has been conducted please contact Jill Andeanoff on 12012442@brookes.ac.uk or the Chair of the University Research Ethics Committee for Oxford Brookes on ethics@brookes.ac.uk

The study is being supervised by Dr Elaine Cox, Director of Post Graduate Coaching & Mentoring Programmes at Oxford Brookes University who can be contacted on ecox@brookes.ac.uk or Telephone : 01865 488350.

Or Dr Christian Ehrlich, Senior Lecturer, Oxford Brookes – cehrlich@brookes.ac.uk

Or Dr Judie Gannon, Principal Lecturer, Oxford Brookes - jmgannon@brookes.ac.uk

What should I do if I decide to take part?

If you wish to take part in the research then you will need to complete and sign the consent form provided and return to Jill Andeanoff. You will then be contacted at the end of the coaching programme and invited to take part in the focus group and/or complete the feedback questionnaire.

Further Information

Details about taking part in the coaching programme as a coachee can be found on [REDACTED]

Thank you for taking the time to consider taking part in the research

University of [REDACTED] Protocol Number: EDU SF UH 00023. Granted by Social Sciences, Arts and Humanities ECDA Chairman

APPENDIX 5 - Focus Group Transcript Examples



dictate2us
dictate2us, Maple House, Haymarket Street, Bury, BL9 0AR
t: +44 (0) 161 762 1100, operations@dictate2us.com

		helped her with time management. So for example of constructing her revision timetable and stuff like that. And she found it really helpful because I think when she has like a lot of freedom she maybe she's sorts of leaves things a little bit. So I think that really helped her, yeah.
00:11:35	S1	Okay, thanks.
00:11:36	S6	I'd agree in the way that sort of weekly meetings helped by having time and sort of just sit down and just focus completely, nothing else sort of distracting. And also I'd say maybe confidence. My coachee, he took notes, he did bits of research for his essay but he was always confused every time I would I meet him, whether he's doing the right thing or not. So I think just by sort of saying that, 'You are.... This is good, this is a good. You can expand on it by this.' Helped him to see that he's fine and stop second guessing himself.
00:12:11	S1	So confidence. Okay, you saw.... I mean, was that something he said to you or is it something that you perceived?
00:12:19	S6	Just saw over the time because it was working on an essay together and it sort of started of as 'I don't know what to do. I don't know what to do.' Then slowly, slowly, slowly got through his lecture notes, look through the sources that he already looked at, looked at some more and then by the time he had it finished on time, handed it in and...yeah.
00:12:35	S1	Okay, excellent. Anything anyone else wants to add?
00:12:40	S8	Well, my coachee had a problem with planning, assignments. In the beginning he knew where he was going wrong because he kept all his feedback, always laid them out, this was this course work which is good. So he knew that he had problems. He knew the problem that needed to be attended to but he didn't know how to do it. So along his problems to do with referencing, he didn't know when the Harvard referencing guide was, didn't know any of those things. Like the difference between journals and books. Near the end he knew exactly like what references were good and how to use them in text and references. And he read more which improved a lot of his writing skills because he was writing.... The content was there but it wasn't written well. So a lot of his feedback was that his writing wasn't very good. But he improved because I told him, 'With writing, you have to read. It works hand in hand.'
00:13:40	S1	It worked, didn't it?
00:13:41	S8	Yeah. He improved a lot then in that way.
00:13:44	S1	Okay, thank you. Hello, are you joining us?
00:13:51	S10	Yeah.
00:13:51	S1	Can you bring a chair?

APPENDIX 5 (cont)



dictate2us
dictate2us, Maple House, Haymarket Street, Bury, BL9 0AR
t: +44 (0) 161 762 1100, operations@dictate2us.com

00:13:53	S10	Yeah, sure.
00:13:54	S1	[Inaudible 00:13:54] then. I'll move along. Right, next question. What would you describe as the main topics that were covered as part of your coaching support?
00:14:18	S9	Confidence was always a big issue.
00:14:22	S1	So that was something that was discussed?
00:14:23	S9	Always.
00:14:26	S10	Thank you so much.
00:14:29	S1	So confidence, yeah.
00:14:30	S9	And actual subject matter. And what I also found was, 'Why am I doing the course? What was the reason why I'm actually on the course?' And it was linked to the confidence and I think, what I found was the coachee didn't realise the volume of work that was involved. And it took a while to understand that actually when you do.... He couldn't understand why the grades were so low. And when I was.... He was showing me what he was doing, I said, 'Well, actually if you haven't got even some of the basic core information that needs to go in as your basics, it's going to be...you're going to always find it quite difficult.' And I think we had sort of work on 'if you're not sure why you're doing the course then your confidence won't be high.' So I ask for him write a vision statement for himself. 'Why do you want to be a nurse?' He had the good Samaritan in his head. And, I said, 'Well the good Samaritan isn't a professional. This is a professional course.' So I explained what I have in my ward, which gets me up every day. That's my motivator. So what motivates you? And that actually left him sitting away with that as his little task and when he came back the next time he actually was able to give some reasons as to why he was able...why he wanted to do the course. And then based on that, he was able to start build a stronger foundation. But I think they were all sort of interlinked.
00:16:39	S1	Okay, alright. Can anyone else comment on that one? What were the main topics covered?
00:16:47	S3	In my meetings, the main topics covered were the structure of their writing and the planning of their writing, the referencing in their writing. Basically it was all based on her essay writing and it was little things that they wanted help with. And all the little things obviously interlinked in that overall helped their whole essay writing. So mainly based on that.
00:17:10	S7	Mine was mostly based on, yeah, writing as well but also how to do research. Because my coachee had absolutely no idea what to do. She simply said she tried but came up with no results which kind of makes you think, 'No, you didn't really try.' So I had to teach her on that and help her out, filter out what was necessary and what

APPENDIX 6 - Interviews/Focus Groups (1 hour maximum)

Remind students that this feedback is based on the **Peer Coaching** programme only and **NOT** the NSP mentoring programme which has been evaluated separately.

Remind all students that the focus group sessions are being recorded to avoid note taking and so that the recordings can be listened back to and analysed afterwards.

Reassure them that they will remain de-identified and that none of their individual views or opinions will be given to their coachees/coaches or to programme tutors or any other member of university staff.

Remind them that if they are uncomfortable with any line of questioning they should say so and they can leave at any time they wish.

Inform them that the recordings will be transcribed, analysed and the main themes drawn out so that conclusions can be drawn.

Follow up both negative and positive remarks and NEVER ask leading questions.

Examples of how to follow up responses can be as follows:

- In what way?
- How come?
- Tell me more about
- What leads you to believe/think this?
- Can you give me an example?
- What evidence do you have that leads you to believe or think this?
- That's interesting can you explain/describe exactly what you mean?

Ensure that EVERYONE has the opportunity to contribute and that any strongly opinionated people are not allowed to dominate the conversation. This can be achieved by asking a question and saying 'let's hear from someone else this time'. Ensure that you do however acknowledge and thank the more dominant students for their views. You could also ask 'Does anyone have a different view/opinion to this?' Another method to include a quiet participant is to directly ask them their opinion on the question being discussed.

You can summarise the main points made by a participant but do take care not to put your own slant or meaning into what they said. However it is best not to summarise if you do not fully understand their point but to ask more probing questions as suggested above.

PLEASE ASK ALL COACHEES TO COMPLETE THE SANDER (2009) ABC QUESTIONNAIRE AND A POST-COACHING FEEDBACK FORM.

APPENDIX 7 - INTERVIEW QUESTIONNAIRE FOR COACHEES

	RATIONALE	AIM
<i>How would you describe the frequency of the contact you had with your coach? (eg rarely communicated, intermittent communication, regularly met etc)</i>	To establish whether the coaching relationship was perceived by the coachee to be a sustained one or perhaps more sporadic.	2
<i>What do you perceive to be a 'good' grade?</i>	To determine the perception of the coachee as to what would be deemed as a successful grade. To gauge the level of their academic expectations.	2
<i>Has the Peer Coaching impacted on your confidence in receiving a good grade and if so how?</i>	To determine the impact of the coaching intervention on academic attainment that could be compared to their actual academic performance.	2
<i>Has the Peer Coaching impacted on your overall satisfaction with student life and if so in what way?</i>	To establish perceptions of impact of coaching on other factors considered important in terms of student success	2
<i>Did the Peer Coaching alter the way that you managed the requirements of your course and if so how?</i>	To establish perceptions of any noticeable changes to academic performance which could be related to the peer coaching.	2, 3
<i>What was the most useful aspect of the peer coaching?</i>	To determine which aspects of the coaching had the most impact for the coachee that could inform higher education institution practice	3, 4
<i>What was the least useful aspect of the peer coaching?</i>	To determine which aspects of the coaching had the least impact for the coachee that could inform higher education institution practice	3, 4
<i>Was there anything for which you would have liked to receive support for (from your coach) but did not? Please describe.....</i>	To help determine any improvements that could be made in the provision of peer support and practice	3, 4
<i>Would you recommend coaching to other students? Please specify why/why not?</i>	This question allows the participant to identify the possible purposes (or not) for coaching in an objective way. It allows them to view the intervention as an observer as opposed to a participant taking away their personal involvement (perhaps allowing more freedom of opinion)	3, 4

APPENDIX 8 - Pilot Questionnaire Feedback

Please give your opinion on the above questionnaire as regards to the following:

- How you felt it encouraged honest responses
- If it felt intrusive
- If completing it made you feel uncomfortable
- How easy it was to understand
- How time consuming it was to complete
- How the time taken to complete it might influence your responses
- Whether you felt the questions were in any way leading

Please state below how you would rephrase/improve any of the questions:

1. Put dots after numbers eg: 1. not 1

Good unbiased questions

only thing is that it is quite a long questionnaire - that may encourage quick,

inaccurate responses

APPENDIX 8 (cont) – pilot questionnaire

Please give your opinion on the above questionnaire as regards to the following:

- How you felt it encouraged honest responses
- If it felt intrusive
- If completing it made you feel uncomfortable
- How easy it was to understand
- How time consuming it was to complete
- How the time taken to complete it might influence your responses
- Whether you felt the questions were in any way leading

Please state below how you would rephrase/improve any of the questions:

- Yes, it encouraged honest responses
- No, it did not feel intrusive
- No, it did not make me feel uncomfortable
- It was easy to understand.
- Completed in less than 10 minutes.
- # The questionnaire is not too long. Responses will be precise
- No, questions were not leading.

APPENDIX 9 - SURVEY QUESTIONS FOR COACHEES (Repeated pre and post-coaching)

QUESTION	RATIONALE	AIM
<p><i>What do you perceive to be a 'good' grade?</i></p> <p>Pass 3rd 2:2 2:1 1st</p>	<p>To determine the perception of the coachee as to what they would be deemed to be a successful grade. Changes in perception could be explored when compared to post-coaching answers.</p>	2
<p><i>How confident are you that you will receive a good grade?</i></p> <p>Likert scale 1-7</p>	<p>To determine the impact of the coaching intervention on confidence levels that could be compared to post-coaching perception and to the actual grade achieved post-coaching.</p>	2, 3
<p><i>Zx32What average grade do you expect to receive this year?</i></p> <p>Fail Pass 3rd 2:2 2:1 1st</p>	<p>To establish perceptions and academic expectations of students that could be compared to post-coaching module grades attained.</p>	2, 3
<p><i>How satisfied are you with your academic progress so far?</i></p> <p>Likert scale 1-7</p>	<p>To establish any noticeable changes to perceptions of academic progress that may be related to the peer coaching when compared to post-coaching scores.</p>	2, 3
<p><i>How well are you managing the requirements of your course so far?</i></p> <p>Likert scale 1-7</p>	<p>To determine any noticeable changes in perception of copy with course requirements from pre to post-coaching that could inform higher education institution practice</p>	3, 4
<p><i>How satisfied overall are you with your student life?</i></p> <p>Likert scale 1-7</p>	<p>To determine any noticeable changes in perception in student satisfaction which can be linked to academic attainment from pre to post-coaching that could inform higher education institution practice.</p>	3, 4

APPENDIX 9 (cont) – Post-Coaching Survey Questions

QUESTION	RATIONALE	AIM
<p><i>How frequently did you meet/ communicate with your coach?</i></p> <p>1-2 3-5 6-9 10 times or more</p>		2
	<p>Please rate the help that you were given by your coach with the following topics:</p> <p>Likert scale 1 – 7</p>	
<i>Organisational skills</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Presentation skills</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Revision skills</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Referencing skills</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Essay writing skills</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Time management skills</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Motivation</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Placements/work experience</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Making the most of University</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Balancing work/study</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4

<i>Exam preparation</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Integration</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Coursework/help with specific modules</i>	To determine which aspects of the peer coaching were perceived to be of most use	2, 3, 4
<i>Please specify any other areas/ topics in which you received support</i>	To determine any other areas where support was offered outside of the anticipated topics	2, 3, 4
<i>Was there anything for which you would have liked to receive support from your coach but did not – please describe....</i>	To determine where the peer coaching did not deliver its aims to help inform practice for other higher education institutions	2, 3, 4
<i>What was the most useful aspect of the peer coaching?</i>	To explore which aspects of the peer coaching were perceived to be the most effective	2, 4
<i>What was the least useful aspect of the peer coaching?</i>	To explore which aspects of the peer coaching were perceived to be the least effective	2, 4
<i>Would you recommend the peer coaching to other students? Please specify why/why not?</i>	To allow participants to identify the possible purposes (or not) for coaching in an objective way, taking away their personal involvement (perhaps allowing more freedom of opinion)	2, 4

APPENDIX 10 - Pre and post scores for Elizabeth - Case Story 1





QUESTION (Likert scale 1-5) Confidence in your ability to:	Pre-coaching score - Feb 14	Post-coaching score – May 14
1 Study effectively on your own in independent/private study	4	4
2 Produce your best work under examination conditions	2	4
3 Respond to questions asked by lecturer in front of a full lecture theatre	2	3
4 Manage your workload to meet coursework deadlines	1	4
5 Give a presentation to a small group of fellow students	4	3
6 Attend most taught sessions	5	5
7 Attain good grades in your work	2	4
8 Engage in profitable academic debate with your peers	2	3
9 Ask lecturers questions about the material they are teaching, in a one-to-one setting	4	5
10 Ask lecturers questions about the material they are teaching, during a lecture	1	4
11 Understand the material outlined and discussed with you by learners	3	4
12 Follow the themes and debates in lectures	2	3
13 Prepare thoroughly for tutorials	3	3
14 Read the recommended background material	4	4
15 Produce coursework at the required standard	4	4
16 Write in an appropriate academic style	1	4
17 Ask for help if you don't understand	2	5
18 Be on time for lectures	4	5
19 Make the most of the opportunity of studying for a degree at university	3	5
20 Pass assessments at the first attempt	3	4
21 Plan appropriate revision schedule	2	3
22 Remain adequately motivated throughout	1	3
23 Produce your best work in coursework assignments	1	4
24 Attend tutorials	4	5
Total Score/Average score	64 / 2.67	95 / 3.96

APPENDIX 11 - Case Story 1 - Emily Contact Logs Example

CONTACT RECORD

Please note that this document is for monitoring purposes only and should **NOT** contain information of a personal or confidential nature.

Coachee: Peer Coach:

Session number and date	Main topic of discussion : (Eg. Coursework/time management/ exam preparation/ personal issues, agreed actions etc)	Coachee Initials/ signature
Session One 06th march 2014	Discussed areas of worry - discussed support for Assignment writing including planning, structure, analysis & referencing. Coachee completed a review 'review of module sheet' and we discussed areas for improvement. Agreed for next Session to read over one of my plans & one essay.	
Session two 23th March	To read over one of my essay plans & one of my essays - discuss together the good & bad points - coachee to note any areas to help her essay writing. To complete on evaluation sheet of studying and discuss together. mentee to bring a plan in for her assignment next time we meet.	
3rd April Session 3	To read through mentees lesson plan & discuss ideas around it for the essay. To discuss how to analyse and how to cut down parts to fit more in. - give support in how to do this. (proof-reading, cutting out repeated phrases). mentee to decide which parts to take out of lesson plan as both agreed there is too much. to meet next time to re-read lesson plan along with essay & give feedback.	
17th April Session ④	To read & discuss mentees essay & lesson plan. To give feedback & discuss good & bits for improvement. feedback given on accurate referencing and analysing. Mentee happy with feedback & has improved her analytical skills & broader reading. next time we meet to discuss plan for next assignment.	

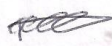
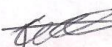
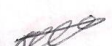

APPENDIX 12 - Case Story 2 – Lydia Contact Log Examples

CONTACT RECORD - PEER COACHING

Please note that this document is for monitoring purposes only and should **NOT** contain information of a personal or confidential nature.

Coachee:

Coach:

Session number and date	Main topic of discussion : (Eg. Coursework/time management/ exam preparation, agreed actions etc)	Coachee Initials/ signature
28/03/2014 ①	<p>⇒ First meeting (exchanged numbers)</p> <ul style="list-style-type: none"> - Covered the ground rules and that agreed on what days & time to meet. - Went through main problems: - coursework only, essay writing and exam preparation. - Agreed to bring in a few essays that the coachee has done for review. - Coachee has agreed to review what type of a learner she is and bring module guides to next session. 	
31/04/2014 ②	<p>⇒ During the meeting, the coursework and exam criteria was reviewed for each modules.</p> <p>⇒ The coachee brought along module guides so we were able to look at what the student has to aim for.</p> <p>⇒ Reviewed an essay she wrote, coachee agreed to that advised the coachee to do a plan first before the essay.</p>	
10/04/2015 ③	<p>⇒ A plan for the essay she wrote was made during the session, to help her understand the main points.</p> <ul style="list-style-type: none"> • The coachee brought an assignment that she needed advise/help on. • Looked through the assignment, we discussed how the student could go about doing it. • I referred back to the a similar one that I that did to assist the coachee. • I gave the coachee some references for her to look up which could be helpful. It was decided we will have a look at it at the next session. 	
16/04/2014 ④	<ul style="list-style-type: none"> • From the previous session, the coachee was asked to go away and look at some references for an assignment. • During the session, coachee had explained how useful she found the references. • A review of the assignment was done together and feedback was given. • Coachee took the feedback positively and took away the assignment for further improvement (Before the easter break) 	

APPENDIX 13 – Coachee interview transcript example

00:01:37	S2	I don't think it was enough to do well because of the other problems. And I, I mean, because I did an assignment after that and I'm still on the same grade.
00:01:44	S1	Right. Okay.
00:01:45	S2	And I was kind of like a typical example of that. I didn't do that great.
00:01:49	S1	Yeah, that's interesting. OK. Do you think that the peer coaching has impacted at all on your confidence in receiving a good grade?
00:01:55	S2	I think that she did, how do I put it? She taught me some, like we had actions every week and then she gave me a list of things to do. She taught me kind of a bit more discipline. So if I apply that discipline next year, then I should get a better grade.
00:02:12	S1	Okay.
00:02:13	S2	We were kind of focused on like work placement and things like that. So I could still apply the discipline I've learned from it.
00:02:22	S1	Alright. So, yeah?
00:02:23	S2	Sorry, I think yeah. I think maybe the organisation skills too – that's something I could take forward with me.
00:02:27	S1	Right.
00:02:29	S2	But the fact that I didn't do that well, I don't know if that was because of her or it's because by that time I didn't discover that I was dyslexic.
00:02:36	S1	Right. Yes.
00:02:38	S2	So I can't, I don't know why that is?
00:02:40	S1	No, okay. That's fair enough. It'll be difficult to (overlapping conversation)
00:02:44	S2	To detect, yeah.
00:02:46	S1	Yeah. Yeah. So anything else regards to confidence then?
00:02:54	S2	Yeah. She kind of gave me quite good advice with regards to approaching lecturers and things like that.
00:03:01	S1	Okay. Alright. Thank you. So...let's see ... Do you think the peer coaching has impacted in any way on your satisfaction with student life in general?
00:03:17	S2	Not really.
00:03:19	S1	Not for you. No?
00:03:23	S2	Not really, but in a way yes because I've got more, like I've realised more opportunities are available to me.
00:03:31	S1	Okay.
00:03:32	S2	So yeah.
00:03:33	S1	So, maybe?
00:03:34	S2	Yeah.

APPENDIX 13 (cont)

00:03:36	S1	(Laughter) Okay. Alright. No, that's fine. Alright. And did the peer coaching alter the way that you managed the requirements of your course at all, do you think?
00:03:46	S2	Yes.
00:03:47	S1	Yeah? Can you qualify that? In what way did it?
00:03:52	S2	I would say like I said before, the actions, like how to prioritise tasks. Yeah, and like how to approach lecturers and things like that.
00:04:01	S1	Alright yeah, thank you. Okay. Alright that's fine. So if there was anything, what was the most useful aspect of the coaching?
00:04:11	S2	I think the guidance she gave me on the organising and her work and how she did it to herself. She didn't apply it to me but as you apply it to yourself I try to pick up things that I can maybe try and do to my... And I tried it, yeah. So I think that might be something useful, and I still use that. I still remember it.
00:04:18	S1	Okay. Alright. Anything else?
00:04:20	S2	I think the actions because now I have set myself actions. And also I found a placement now. Because that was one of my actions, to like go out looking for them which will help me in the future.
00:04:29	S1	How did the coach help you with that then?
00:04:32	S2	She helped me to write cover letters and helped me with my CV and things like that.
00:04:40	S1	Okay. Alright. Thank you. So opposite to that, what was the least helpful thing or the least useful aspect of the peer coaching?
00:04:44	S2	For me, I would say that, because she was doing her Masters in...not the same topic as me. But, so she couldn't really speak about my course in depth, like it's coming from experience. But I picked her because of the work experience she had anyway. So, I guess, it's kind of my fault. (Laughter)
00:04:55	S1	Okay. Alright. Thanks.
00:04:58	S2	I think that's the similar as well that... And she did another degree. I think she did psychology.
00:05:03	S1	Yes.
00:05:04	S2	And that's why, and there's nothing similar to Dietetics. But some modules were similar. And the module that I was hoping for her to help me most on, it was similar but when we got on talking about it, it was something different. And as I say she wasn't helping with that. I think another thing is that she had exams the same time as me. So she wasn't around for my exam preparation outline thing. So I think that's why I struggled, and yeah, because I'm under pressure already.
00:05:15	S1	Okay. Alright. Thank you. Was there anything that you would have liked support from your coach and didn't actually get it?