

An Evaluation of a University Peer-Mentoring Training Programme

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Abstract

This study of a university peer-mentoring training programme evaluated mentor reaction, learning, transfer of learning and impact on organizational goals. Using quantitative and qualitative measures, the study found that the mentors reacted positively to the training, that training enabled mentors to develop and reinforce skills and encourage them to establish and maintain networks, or social capital, throughout the university. Peer-mentors reported transferring skills and identified effects beyond mentoring. The study affords insights into the training requirements and learning experience of peer-mentors and shows that mentor training is indispensable in providing tools and techniques and an opportunity to reflect on practice, and in facilitating the feedback necessary to continuous improvement in the mentoring capacity.

Key words: Peer mentoring, training evaluation, student support, academic experience, higher education

Introduction

Peer-mentoring in higher education, where experienced students provide guidance and support to new or faltering students to enable them to navigate through their college or university education, is regarded as one of the more effective interventions to ensure the success and retention of vulnerable students (Freedman, 1993; Johnson, 2002; McLean, 2004; Pagan & Edwards-Wilson, 2002; Topping, 1996). Specifically, Pagan and Edwards-Wilson (2002) conclude, in their study of peer-mentoring, that effective mentoring programmes can improve the retention and raise the GPA of vulnerable students.

Given its potential as an intervention, many universities and colleges have implemented some form of peer-mentoring as part of their student support services (Jacobi, 1991; Johnson, 2002; Tinto, 1998). Regardless of the kind of mentoring service, effective training of mentors is considered critical to the success of these programmes (Anucha, Regehr & Daciuk, 2001; Ehrich, Hansford & Tennent, 2004; Garvey & Alfred, 2000; Mee Lee & Bush, 2003; Million, 1988; Tierney & Branch, 1992; Tindall, 1995). In fact, in their extensive review of the literature on formal mentoring programmes, Ehrich *et al.* (2004) report lack of mentor training as one of the key issues that can cause problems in the mentoring relationship. Likewise, Garvey and Alfred

(2000) state that the skills and knowledge required of a peer-mentor should be not assumed and that the organization instituting a peer-mentoring programme must commit resources to training.

The Peer-Mentoring Programme at the University of Ottawa

The University of Ottawa (UofO) in Ottawa, Canada, offers a peer-mentoring programme across the campus in different faculties. The programme provides formal peer-mentoring whereby paid peer-mentors are available to meet with mentees, who explain their concerns in a private, one-on-one meeting with the mentor, who, in turn, provides support and guidance.

Immediately thereafter, the peer-mentor documents the intervention in a logbook, making note of the reason for the visit, the negotiated course of action and the rationale for the mentor's approach. Once completed, peer-mentors electronically submit the logbook to their resource person, a learning specialist with the University's Student Academic Success Service (SASS), who then provides written feedback and returns the logbook electronically to the mentor for review and filing. The logbook is a record of all meetings between mentors and mentees and also serves as a regular feedback mechanism – and thus a form of ongoing training – for the peer-mentor. In addition to their regular hours in the Mentoring Center, peer-mentors are also expected to attend 90 minute weekly staff meetings to discuss issues and receive ongoing training.

The Peer-mentoring Training Programme

Based on a review of the literature on peer-mentoring (Jacobi, 1991) and on a training model proposed by Philion (2003; 2005), SASS learning specialists identified a set of peer-mentor competencies deemed critical to the success of the programme. The four competencies are:

1. establishment of a helping relationship,
2. understanding the resources at the University,
3. knowledge of the learning strategies essential to university-level studies, and
4. sharing expertise between student mentors, with resource people and coordinators of the mentoring centers.

To enable the first cohort of peer-mentors to take on their role as peer-mentor and to hone these competencies, SASS designed and implemented a Peer-Mentoring Training Programme (PMTP). The goal of the PMTP, offered on an annual basis to both new and returning mentors, is to develop the skills and knowledge of peer-mentors in order to enhance the academic and personal success of both mentees and mentors (See [Appendix 1](#) for an overview of the training modules). While the immediate goal of the training programme is to enable peer-mentors to support mentees, the PMTP is also intended to further the personal and professional development of the mentors themselves. These positive effects have been supported by numerous studies (e.g. Barnier, 2001; Baudrit, 2000; Devlin, Davis & Andrews, 1998; Good, Halpin, & Halpin, 2000; Philion, 2005; Romainville, 2000; Topping, 1996).

This study evaluated the PMTP in its second year. The PMTP began with a three-day intensive training workshop for new and second-year peer-mentors and then continued throughout the school year with ongoing training during the mentors' regular weekly staff meetings. All modules featured an experiential, hands-on format designed to engage the participants in a self reflective learning experience (Phillion, 2005, Schön, 1994). According to Phillion (2005), this reflective practice allows mentors to describe and analyze their mentoring practices in terms of the effectiveness of these practices and enables them to adapt and change as a result of the learning process that they experience in training.

The PMTP is designed to provide a researched-based and comprehensive training programme to develop the skills and knowledge of peer-mentors. To evaluate the training, this study employed Kirkpatrick's (1976) four level model of training evaluation, which is widely regarded as the standard for assessing training effectiveness (Seibold, Kudsi & Rude, 1993). The model proposes evaluating training by examining outcomes such as how mentors reacted to the training, what they learned in training, whether they were able to apply what they learned to their job and whether the training had any impact on organizational goals.

Method

Subjects

Subjects consisted of all 12 new (n=10) and second-year (n=2) peer-mentors in the Student Mentoring Centers in the Faculties of Arts and Health Science. There were ten females (83.3%) and two males (16.6%), with an average age of 21 years. Six of the participants were in their second year of study (50%), four were in their third year (33.3%) and two were in their fourth year (16.6%). Linguistically, the sample was composed of nine participants who claimed French as their mother tongue (75%), two who claimed English (16.6%) and one who claimed another language as mother tongue (8.3%).

Procedures

Level one: Reaction

Immediately following each module of the training programme participants completed a reaction questionnaire to measure participant satisfaction and perceived utility of the training.

Level two: Learning

At the outset of the training programme new mentors (n=10) were asked to reflect on their *actual level* of competency in each of the mentoring sub-competencies on a scale of 1-10 (one being little competency, 10 being great competency). At the conclusion of the training programme they were asked to report their *achieved level* of competency in each of these sub-competencies. Only new mentors were asked to complete this assessment, given that returning mentors had already been exposed to some training and the experience of mentoring the year before.

As discussed above, all mentors are required to complete a logbook recording information about their interaction with each mentee. To measure *how* they learned the

competencies required of them for each intervention, they were asked to select from a list of possible answers, including 'Learned in Mentorship Training.'

Level three: Behavioral Changes

Focus groups were conducted during regular staff meetings near the end of the mentoring training programme. In a bilingual format, mentors were asked to discuss the degree to which they were able to transfer their learning to the mentoring position after the training. They also reflected on the impact of the training on other areas of their life (such as their own studies). Each focus group lasted sixty minutes. Focus groups were audio-taped and transcribed verbatim. Focus groups were facilitated by the first author, who was not involved in the training programme, and a SASS employee who had had no contact with the mentors. In this way, the desire of mentors to please their supervisor was mitigated.

The thematic assessment of the focus group narratives was conducted with the goal of identifying recurring themes indicating positive behavioral changes as identified by the mentors themselves. To ensure inter-coder reliability, coding of the data was conducted using the following procedures: three of the authors independently reviewed all of the narratives from the focus group transcripts. Each coder identified salient themes that reflected the speakers' observations of a successful impact or outcome in terms of behavioral change resulting from the PMTP. Following this, the coders met to present, discuss and reach consensus on the definitions for each theme. The coders then independently coded all of the narratives for references to these identified themes. Finally, the three coders worked together to reach agreement on coded units. Disagreements between the coders were resolved through discussion. In this manner, the coders reached 100 per cent agreement on the identification of the themes.

The logbooks provided not only an opportunity to determine *how* mentors learned to use mentor competencies but also the frequency with which they used the competency in their interventions. Mentors were asked to provide descriptions of each of their interventions in these logbooks. Conceptual content analysis was conducted to determine the frequency of competency use by mentors in these interventions. There were four coding categories, each representing one of the four core mentor competencies. The coding decision for a particular logbook excerpt was based primarily on the sub-competency descriptions. It was felt that these sub-competency descriptions provided sufficient operationalisation for each coding category. Furthermore, inter-coder reliability was tested by way of Holsti's method on a sample of 59 logbook entries (30%) out of the total of 192 completed logbooks. Appropriate sample size was calculated following Lacy and Riffe (1996). Following an initial meeting to establish coding procedures, two of the authors independently coded each of the 59 entries. Inter-coder reliability calculations showed a 0.72 agreement coefficient between the two coders. According to Lombard, Snyder-Duch and Bracken (2002), this level of inter-coder reliability was sufficiently high to proceed with the coding of the remaining logbook entries by one of the authors alone.

Level four: Impact on Mentors

In addition to preparing mentors to provide mentees with guidance and support, the PMTP (and indeed, the experience of being a mentor) is designed to enhance the learning

experience of the mentors themselves. During the focus groups, participants were therefore asked to reflect on whether or not they perceived the PMTP to have had an impact on areas of their life other than their mentoring job. Narratives were analyzed using the procedures for the focus group assessments described above.

Results

Level 1: What was participant reaction to the training?

The reaction questionnaire was designed to measure participants' reactions to each of the eleven modules of the intensive and ongoing training in which they took part during the 2004-2005 school year. Participant reaction to the training was measured across several dimensions: practical value of the session, generation of new ideas, maintaining interest, clarity of objectives, applicability to the mentoring relationship, and applicability to other areas of the mentors' lives. Participants reported a generally very positive reaction to the different modules of the training programme. The mean score given by the mentors across all eleven modules of training was 6.66 on a 7-point Likert scale. Each training module had a modal score of 7, a clear indication that training was perceived very favorably by the mentors. The module receiving the highest mean rating was Reading Strategies (mean=6.93 on a 7-point Likert scale) while the lowest rating was given to the Stress Management module. Only one training module received a rating below 5 from an individual mentor: one mentor gave the Stress Management session a score of 3 for Maintaining Interest and a score of 4 in Clarity of Objectives. With the exception of the two low scores received in the Stress Management session, the overwhelming majority of participants reacted very positively to the PMTP.

Level 2: What did Participants Learn?

Prior to training, new mentors were asked to evaluate their level of confidence in each of the four core competencies. The mentors reported a mean level of confidence on a scale of 10 across all four competencies as 5.83 out of 10. Following training, the mean level of confidence was 8.90 out of 10 (See Table 1). A paired t-test ($p < 0.005$) confirmed the statistical significance of this difference in means (+3.07 points). Therefore, it is possible that mentors experienced a significant increase in their perceived level of competency from pre- to post-training.

Pre-Post Training Self-Evaluation: Changes in Individual Competency

In addition to indicating an increase in overall competency, the analysis also revealed significant increases in the reported means for each of the four competencies taken individually. New mentors reported the highest increase in competency two, *Understanding the resources at the University*, from the pre to post training periods. Prior to training, the reported mean for competency two was 4.04, on a scale of 10, indicating a relatively low level of confidence in knowledge of the University's resources prior to training. Following training, the self-reported competency level increased to a mean of 8.42, a difference of + 4.38. This is the highest increase of all the competencies in the comparison before and after training and is, according to a paired t-test, statistically significant.

The next greatest increase was reported in competency number three: *Knowing the learning strategies appropriate for university-level studies*. Mentors reported a pre-training mean competency level of 5.44, again out a possible score of 10. The post-training competency mean was 8.78, a difference of +3.34 points, again a statistically significant difference.

Competency four, *Ability to share expertise and experiences and to be able to work in a team*, received a pre-training mean score of 6.19 and a post-training mean of 9.25, for an increase of +3.06 points. It is interesting to note that the level of confidence felt by the mentors following training in this fourth competency was the highest of all the competencies. It is reasonable to assume that following training mentors felt capable of sharing their experiences and expertise with other mentors as well as with coordinators and resource personnel.

Although not reflecting as dramatic an increase in competency level as the other three competencies, competency one, *Establishment of a helping relationship*, still had an overall increase of 2.38 points from pre- to post-training. Mentors reported that their competency increased from 6.50 to 8.88. This would seem to confirm that mentors already possess some degree of confidence in their ability to help others, which makes intuitive sense given their desire to mentor other students. This can be linked back to their previous experiences and an interest in helping people in general. In other words, it can be assumed that mentors came into the training programme already comfortable in the skills and knowledge required to establish a helping relationship, given their prior experiences and personalities. Therefore, of all the competencies, it is not surprising that the smallest gain in confidence is seen in the helping relationship competency. Explanations for this finding could be that either the training is not advanced enough or that the mentors do not need the training because of their prior experience or knowledge or the abstract nature of the helping relationship competency makes it more difficult than the other competencies to identify change in skill or knowledge level. This is an area for further research.

Logbook entry analysis

In addition to measuring learning through the Pre-Post Training Self Evaluation, learning was also assessed through analysis of the logbooks. Once mentors had documented the intervention in their logbook they also identified the means by which they had learned the skills used in the consultation. Mentors were given a total of nine categories to choose from: learned in mentorship training; asked for advice; read in a book; observed others; learned in class; feedback; life experience; trial and error; and other.

During the period of this study a total of 192 logbooks were completed. Mentors reported that in 92.2% or 177 consultations, they used their previous life experience to help students. In 139 (72.4%) of the cases, the skills they used during the consultation were learned in mentorship training. In 36.2% of interventions, mentors reported using feedback provided by their resource person in the logbooks to explain the chosen course of action. Interestingly, given that the communication between mentor and resource person in the logbooks provides feedback *and* is considered part of the ongoing training of mentors, it is clear that training, both during staff meetings and through the formal feedback processes, are essential to the development of

mentors. In addition to life experience and training, mentors reported using skills learned from books, magazines or websites 26.6% of the time, while citing trial and error 21.9% of the time. In only 14.6% of the interventions mentors indicated they had gained their skills because of their education or other past training. Observation of others and advice obtained from other people (excluding the resource person) were identified least by mentors in terms of where they learned the skills used in each intervention: 9.9% and 6.3% respectively.

It is interesting to note the rarity with which the mentors attributed their chosen course of action in a session with their mentee to role modeling behaviors exhibited by others. The findings from the logbook entries indicate that mentors did not perceive role-modeling as frequently informing their courses of action in interventions with mentees. Several plausible explanations exist, such as that role modeling functions on a subconscious level and it is therefore unlikely that changes in behavior would be attributed to role models, or that the formal use of role playing in training was rare. Further investigation into this particular finding would be warranted.

Level 3: Were participants able to transfer their learning?

Content analysis of the logbooks indicated that three of the four core mentor competencies were frequently used in sessions with mentees.

Competency 3: Knowing the learning strategies relevant to university-level studies.

The analysis found that mentors most often transferred the core competency of knowing the learning strategies relevant to university-level studies. On average, each mentor demonstrated 2.21 instances of this competency in their consultations with their mentees. This means that more than any other competency mentors were most likely to apply their knowledge of learning strategies – taught in training – to understand the difficulty being experienced by the mentee. An example of a reference to this competency from a logbook is the following:

We discussed how she studies, what her classes were like this semester, what strategies were helping and what weren't. We discussed new strategies for her to try and made an appointment to come back and reassess those strategies.

Similarly, another mentor wrote the following logbook entry:

I wanted to understand how he studies for his tests - whether he had different strategies for different types of midterms. I learned he [the mentee] is a visual learner, so I discussed some of the strategies we had come up with during our mentor meetings to aid visual learners.

Competency 1: Establishment of a Helping Relationship

Establishment of a helping relationship was the next most frequently identified competency in the content analysis (mean of 1.52 instances of competency use per logbook/intervention). This is not surprising given that mentoring, and peer-mentoring in particular, often functions as a source of psychosocial support (Kram, 1983; Wunsch, 1994). It

can be hypothesized that the psychosocial function of mentoring is particularly prevalent in settings such as the one for the programme described in this study. It is not uncommon for peer-mentors in formal mentoring programmes in postsecondary institutions to come into contact with many students who are experiencing anxiety or doubt as a response to a new environment and expectations (Devlin *et al.*, 1998; Romainville, 2000; Topping, 1996). This makes the helping relationship competency all the more important. Many of the mentor logs showed genuine attempts from the mentors to understand the emotional needs of their mentee, exemplified by the following excerpt:

I talked to him [the mentee], tried to find out if there are other stressful factors in his life which could bring down his marks...I think he just needed some encouragement.

Competency 2: Knowledge of University Resources

The analysis also revealed that mentors used the knowledge of university resources (i.e. other services, available written materials) learned about in training an average of 0.84 times per consultation. This is an important finding because knowledge of university resources constitutes one of the types of information most easily and quickly passed on to students in training, and based on the findings from this study, is put to use in consultations. The mentors often used this core competency to refer the mentees to another service or to direct a mentee query to an appropriate resource. Boyle (1998) has argued that peer-mentors must learn to recognize their own limits and know how to refer students to other resources or support services. The following are two examples of mentors using their knowledge of university resources to refer a student to another service:

I think that she [the mentee] might need more than just relaxation techniques, so I asked her if she wanted to see a counselor and she seemed eager to do so.

And:

I suggested that she visit CARTU [the University's writing center], and that she could also make an appointment with Edith for the French. I also suggested that she ask the professor to explain where she had lost points on the assignment.

Competency 4: Sharing Expertise

The one competency that was not demonstrated in the logbook analysis was the fourth competency, *sharing expertise between student mentors, with resource people and coordinators of the mentoring centers*. It is likely that this competency is not one which would be reported in the logbooks, since it is a competency that would be used in interaction outside of the one-on-one mentoring relationship. That is, mentors would be transferring this competency during meetings, in conversation with other mentors and resource people, and during training.

Level 4: What is the impact on mentors beyond their role as mentor?

In terms of the impact of the PMTP on the mentors themselves, and thus on the organizational goals the programme was designed to achieve, two salient themes emerged. In the following pages, each theme will be briefly defined and direct quotations from the focus group narratives to illustrate the theme will be provided.

Improved educational experience of mentor

Improved educational experience can be defined, following Chow (2003), as being related to the mentors' degree of satisfaction with courses they are currently taking, with the quality of their instructors' teaching, with their own scholastic achievement, with school facilities, and with school life.

The following example illustrates the theme of improved educational experience, in terms of increased knowledge of and use of student support services at the university:

I find that some of the training also brings a lot to us in our personal lives, like the workshop on career services, and all the other services that they offer there, a well as that we got to be tested [using the Myers Briggs Type Indicator], that's something that we ourselves can really learn from. I went to career services and took the tests and met with the counselors ... so it's something that I used myself. And I know that other mentors also did the same thing. They went to see a career counselor or, when we had the training on CARTU [the University writing service], it was like "oh, yeah, if I ever to need help on a paper, I know that I could use this service myself." So it gave us a lot at this level.

Similarly, the following example points to the need for support for mentors themselves, and the impact of the PMTP in fulfilling this need:

I know where to go now, career services and information that I can use too!

Another mentor reported that prior to the PMTP, she was not fully conscious of her own studying techniques but that, thanks to the opportunity to formally learn study skills and to reflect on her own approach, the PMTP allowed her to refine and enhance her skills:

I find that sometimes, when we study, we do things without really noticing what we are doing. Then, in the training context... well there we can look at ourselves and really discover, and say "ah, yes, that's what I do."

Clearly, then, mentors enjoyed a number of positive outcomes in terms of their own educational experience and appreciated the personal benefits that the mentoring training afforded them.

Increased social capital of mentor

Social capital is defined as the sense of connectedness with others in the university (other students, professors, other mentors, and resource people) reported by mentors. This definition

follows Jack and Jordan (1999) who define social capital as “the cultural resources and interpersonal bonds shared by [community] members” (p. 242). Numerous example of increased social capital were reported in the data. The following two examples illustrate the connection felt by mentors with the university in general and their Faculty in particular:

I feel more part of the university community now.

Similarly, another mentor referred to the connectedness he felt with the Faculty in which he studies:

It helped me to connect with our Faculty. The mentoring programme lets us get to know what is going on in the Faculty. I find that excellent.

The following example illustrates the connectedness to professors identified by mentors:

I've had a psychology prof come by, that I didn't really know, and started talking like she knew me. She was interested in what we were doing, stuff like that, so... it was good.

Another student also referred to the relational development she enjoyed with professors as a result of the PMTP and the experience of being a mentor:

A lot of profs would stop by and introduce themselves, sit down and say, look my class is having trouble with this, they're going to come to you so...

Another aspect of the social capital created for mentors through their experience in the PMTP was their connection to professionals within the university, such as those associated with the various support services on campus. The following illustrates this impact:

What the training gave us is especially contacts. Now we really know a lot of people in the different services throughout the university.

Thus the PMTP enhanced the social connections enjoyed by mentors through the contact with professors and university resource people that they developed during the training programme.

Discussion

Reaction to training

Overall, mentors reported that they had enjoyed the training, that it had maintained their interest, that they perceived the objectives to be clear and useful, and that the training was useful and applicable to both mentoring and other areas of their lives. These positive reactions provide a good foundation for learning and behavioral transfer. In other words, while positive reactions taken in isolation do not indicate much in terms of the learning and transfer of learning that will occur, enjoyment of training has been reported as an important pre-requisite to these outcomes (Blanchard & Thacker, 2004). Furthermore, as Alliger, *et al*, (1997) have found, when trainees

perceive training to be useful and practical in terms of their job, there is a greater correlation with transfer of training. Indeed, all modules scored high in terms of utility and practical value, with 85% of respondents reporting that the training programme as a whole was helpful to mentoring. Overall, then, participant reaction to the training programme indicates that it has been a success at the reaction level and bodes well for the likelihood of transfer.

Learning

Learning is defined as a change to attitude, knowledge or skills. Based on the self-reported pre- and post-training learning instruments, it is clear that the knowledge and skill of mentors changed over the course of the training programme. In all four competencies, mentors demonstrated a statistically significant gain in their confidence level. In this regard, several authors have pointed out that one of the significant benefits of peer-mentoring is in building confidence and self esteem in the mentors themselves (Barnier, 2001; Baudrit, 2000; Devlin *et al.*, 1998; Good *et al.*, 2000; Romainville, 2000; and Topping, 1998).

In addition, based on the logbook analysis, it is clear that the PMTP had a significant impact on the learning experience of peer-mentors. While mentors make use in almost every intervention of skills and knowledge acquired through prior experience, it is likely that it was this prior experience that brought them to the job of mentor (e.g. without possessing a background, interest and aptitude for the helping professions, it is unlikely that a candidate would want to be a mentor).

In sum, it is understandable that mentors report using their prior experience in each mentor-mentee interaction. What is meaningful, however, is the degree to which they report drawing on the skills and knowledge gained in the PMTP. From this it can be concluded that while mentors came to the position with a great deal of experience and knowledge, the PMTP contributed to their ability to perform their functions. While prior experience is necessary, it is not sufficient and thus it is clear that the training contributes an important and required structure on which mentors draw in the majority of their interactions with mentees.

Participants demonstrated statistically significant learning in the areas of all four competencies that the training was designed to achieve. The least change in attitude, knowledge or skill was reported in the competency of *Establishment of a helping relationship*. On the one hand, this is not surprising, given that mentors were hired with the expectation that they already possessed the interpersonal communication skills, based on previous experience and personality type, required to establish a helping relationship. On the other hand, it is surprising, given that numerous studies have found that the establishment of the helping relationship is the most important components in the training of peer-mentors (Baudrit, 2000; Cuerrier, 2005; Mee-Lee & Bush, 2003; Pillion, 2005).

As for the competency of *Understanding the resources at the University*, where mentors exhibited some of the most gains, it is clear that this is an area that requires formal training. We should not assume that if mentors spend enough time at the university without any formal training they will become aware of all the resources and resource people available to students.

There is not sufficient time to learn about all the resources quickly enough to refer to them in the mentoring relationship. Likewise, for the competency of *Knowing the learning strategies relevant to university-level studies*, it is clear that training is necessary to enable mentors to understand strategies – perhaps different from their own – and know how to guide a mentee in developing his or her own strategy. Without training, mentors might be inclined to prescribe a learning strategy that has worked for themselves. With training, mentors learn to lead mentees in terms of self-evaluation so that mentees can identify the strategies that would work best for their particular needs (Mann, 1998; Romainville, 2000).

Therefore, we see that training for the competencies of *Understanding the resources at the University* and *Knowing the learning strategies relevant to university-level studies* is absolutely crucial, as these are essential to the success of the mentoring relationship but are not necessarily competencies that the mentor has attained prior to becoming a peer-mentor.

Further, mentors reported being reinforced in attitudes, knowledge or skills they had learned prior to participating in the programme. This outcome reflects the relearning that occurs in formal training situations. Relearning and the chance to reflect and “retool” or adapt if necessary, were identified as important outcomes in a study of a teacher development programme that relied on peer observation to provide feedback to new teachers (Rorschach & Whitney, 1986). Gilles and Wilson (2004) also argued that relearning was one of four main impacts of a mentoring programme they evaluated and these authors concluded that the opportunity to interact with others, whether in training or one-on-one with their mentees, afforded mentors the chance to question taken-for-granted worldviews and their own behaviors and be reinforced in those views and behaviors that were deemed effective. In the case of the PMTP, the training offered participants reinforcement that techniques that might have been learned previously were, in fact, based on current research and practice and could thus be considered effective and applicable.

Transfer of Learning

Mentors reported transferring the knowledge and skills they had learned in training to the job of mentor. In particular, according to the data mentors transferred three of the four competencies in the following order of frequency: *Knowing the learning strategies relevant to university studies*; *Establishment of a helping relationship* and *Knowledge of university resources*. The fourth competency, *Sharing expertise*, was not reported as being transferred from training. This competency, however, is not one that would be used during the mentor/mentee interaction. Rather, the settings in which this competency would be used (in meetings, training and in conversations between mentors and each other or with resource people), were not specifically examined as a means to measure transfer of learning. This remains to be studied.

What is the Impact on Mentors?

In addition to the enhancement of mentor competency through the development and reinforcement of skills in the PMTP, participants identified an improved educational experience (for the mentors themselves) and increased social capital as being important outcomes.

Improved educational experience

The importance of an improved educational experience cannot be underestimated in terms of its impact on student success. In his survey of 318 undergraduate students, Chow (2003) found that a more positive educational experience was related to higher grade point average, better attitudes toward school and learning, higher socioeconomic status, and higher self-assessed academic ability. Chow (2003) concludes that academic performance is significantly related to educational experience, along with other variables including academic ability, educational aspirations, and class attendance. Nordquist (1993) also reports that an improved educational experience is related to connectedness, and that, in turn, connectedness appeared to have the greatest impact on academic and social integration and student retention.

The role of social capital in peer-mentor learning

While the social connections developed through the PMTP enabled mentors to perform their function, they are perhaps more important, from the mentors' point of view, in enhancing the mentors' academic experience and opportunities through the acquisition of resources and interpersonal bonds (Terrion, 2006). The importance of social connections to academic success has been well demonstrated (e.g. Appel, 1996; Bowen and Chapman, 1996; Bowen & Bowen, 1998; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Eccles & Gootman, 2002; Leonard, 1996; Maeroff, 1998; Owen, 2005; Tinto, 1998) and thus can be considered an important outcome for the participants of this training programme. In the university context, Roberts, Clifton and Etcheverry (2001) found that undergraduate students' perceptions of social capital, particularly in the form of support from other students, had a positive impact on the academic experience and grades of these students. Nordquist (1993) studied the connection between students and faculty members and concluded that students perceived this relationship as critical to a positive educational experience. Clearly, a training programme like the PMTP builds social capital for the peer-mentors in the form of greater connection to other mentors, students, professors and members of the university administration and thus enhances this sense of belonging, along with their academic experience as a whole.

Conclusion

This evaluation of the PMTP has assessed how mentors reacted to training, what mentors learned, how they transferred what they learned to the job, and the impact of the training on the mentors. The study has afforded insights into the training requirements and learning experience of peer-mentors in university settings and has shown that mentor training is indispensable in providing tools and techniques and an opportunity to reflect on practices, and in facilitating the feedback necessary to continuous improvement in the mentoring capacity.

Future research could explore the reflective learning process experienced by mentors, for example through a more in-depth analysis of the communication between mentor and resource person contained in the logbooks. Further, understanding how mentors learn, how they evaluate the needs of mentees, how they select the most appropriate intervention, and how they experience their own growth and development would be of interest to the mentoring and student experience literatures.

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