

Mirroring effective education through mentoring, metacognition and self reflection.

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Abstract

Mentoring stimulates individuals to self-assess and reflect, thus becoming more conscious learners, teachers and mentors who are able to apply knowledge of their learning needs and styles to new areas of study and the development of effective classrooms. Self-reflection is a central dynamic to mentoring. Not only is it crucial in encouraging more open minded and creative thinkers and effective educators, but it also develops an awareness of self as learner, teacher and mentor. Individuals who are capable of self-reflection are able to examine their own internal processing mechanisms. This metacognitive capability can be used to significantly improve and modify their processing strategies to enhance performance (Forrest-Pressley, MacKinnon and Waller, 1985 and Hine and Ismail, 1997).

Through the process of mentoring with second and third year preservice education students in a subject entitled *Student Mentoring*, this paper explores a range of strategies that are utilised to develop self-reflection, metacognition and mentoring skills. Students are nurtured through self-reflection and mentoring to evaluate their strengths and attitudes, to monitor their learning and mentoring progress and to set goals for effective learning, teaching and mentoring (Hine, Newman and Peacock, 1999). Mentoring encourages students to become more self-reflective, metacognitively-aware and self-directed learners, teachers and mentors.

Introduction:

The essence of mentoring is the establishment of beneficial interpersonal relationships based upon effective communication (Kerka, 1998). Schwiebert (2000) asserts that "the power of mentoring lies in its one-on-one relationship that is focused on the mentees' learning and development" (p.132). He describes the relationship as often being "intense, intimate and personal" (Schwiebert, 2000, p.132). Mentors provide direction, support, insights and a challenge (Debolt, 1992; Bond 1999). They essentially provide "...their protégés with a sense of what they are becoming" (Debolt, 1992, p.30). A metaphor of a mentor as a 'mirror', illustrates the assistance from one to another, in order to recognise one's "own worth and potential" (Debolt, 1992, p.37).

Mentoring stimulates individuals to self-assess and reflect. Self-reflection encourages more open minded and creative thinkers and effective educators, while developing an awareness of self as learner, teacher and mentor. Carruthers (1993) declares that humans as social beings, naturally "group together to satisfy, as best they can, their needs" (p.12). Mentoring is a vehicle for dialogue, which serves to deepen mutual understanding enabling individuals to become more conscious learners, teachers and mentors who are able to apply knowledge of their learning needs and styles to new areas of study and the development of effective classrooms (Syrjälä, 1996).

A number of researchers include the element of reflection in their definitions of thinking. McPeck (1981), Ennis (1987), Lipman (1988) and Paul (1992) each position reflection as one aspect of deliberate mental processes. Ennis (1985, p. 30) advocates that teachers should "be receptive to questions and students' original thoughts; . . . arrange for students to engage each other in discussion and challenge; ... ask for a focus and for reasons in any discussion". Paul (1992, p. 643) includes the metacognitive notion of "thinking about your thinking while you are thinking in order to make it more accurate or more defensible". Hine and Ismail (1997) and Forrest- Pressley, MacKinnon and Waller, (1985), exploring the concept of metacognition, .see metacognition more as depicting the knowledge of the states and processes of one's own mind and one's ability to control or modify these states and processes.

According to Flavell (1976, 1977, 1978) cited in Resnick (1976), one of the earlier pioneers in the study of metacognition "metacognition refers to one's knowledge concerning one's own cognitive processes and products or anything related to them" (1976, p. 232), in effect it includes "the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in the service of some concrete goal or objective" (Flavell, 1976 p.232). Marzano (1988 p.9), attempting to simplify the debate states that "metacognition is being aware of our thinking as we perform specific tasks and then using this awareness to control what we are doing." In other words " metacognitive processes refer to the control or executive processes that direct our cognitive processes and lead to efficient use of cognitive strategies (Forrest-Pressley and Waller, 1984 p.2). Yussen in Forrest-Pressley, MacKinnon and Waller (1985) conjectures that put another way "metacognition is that mental activity for which other mental states or processes become the object of reflection" (p.253).

These definitions of metacognition extend beyond awareness of one's cognitive processes namely self awareness to the deliberate and conscious control of these cognitive actions.. The phenomenon of metacognition is succinctly summarised by Forrest-Pressley, MacKinnon and Waller (1985) to mean " one's conscious attempts in regulating cognition, the self - regulatory mechanisms such as checking, planning, monitoring, testing, revising and evaluating used by an active learner in ongoing attempts at comprehension" (p.3) Nelson (1992) defined metacognition simply as "cognition about one's own cognitions" (p.1). Halpern (1996) concurs, claiming it is 'knowledge about knowledge', whilst Weinert and Kluwe (1987) add 'reflections about actions'.

Metacognition represents individuals' knowledge of the states and processes of their own mind and their ability to control or modify these states and processes. It powerfully addresses the problem of generalization of performance across settings. The extent to which individuals know what and how they know should be utilizable higher-order knowledge across different settings. Individuals who are metacognitively aware are a self correcting system; one who has learned how to learn. It is the individual's metacognitive knowledge that enables them to behave proactively or to influence the input that in turn influences their activity (Forrest- Pressley, MacKinnon and Waller,1985). Teacher's metacognitive knowledge and executive control of themselves will empower them to work autonomously

and effectively with others in a variety of situations and to nurture metacognitive processes knowledgeable in the students that they teach.

By learning to mentor, students learn new ways of viewing their world and developing their intellectual abilities. These pursuits require the acquisition, comprehension and application of new knowledge, and activate the need for perseverance, research and complex forms of problem solving. Kerka (1998) alleges that "mentoring supports much of what is currently known about how individuals learn, including the socially constructed nature of learning and the importance of experiential, situated learning experiences"(p.3). Processes of thinking, such as problem solving, reasoning and decision-making become the content of lessons - they become the tasks assigned to students. By allowing individuals to construct meaning within the context of interaction with others, learning is facilitated through guided problem-solving experiences. Metacognitive processes are engaged in, while learning and applying knowledge in a collaborative, scaffolded environment. Mentors are a scaffold that gradually decrease their assistance, "...as learners rationalize the process and construct their own knowledge and understanding" (Kerka, 1998, p.3). Such guided learning "...is the most effective mentoring" (Kerka, 1998, p.4). This metacognitive capability developed through mentoring can be used to significantly improve and modify individual's processing strategies to enhance performance (Forrest-Pressley, MacKinnon and Waller, 1985 and Hine and Ismail, 1997).

Metacognition needs to be embedded in collaborative, practical activity. Prior experience, organisation of experience and information and reflection upon relationships within this organisation are characteristics of metacognitive thought, self reflection and mentoring.

Mentoring, metacognition and self reflection:

One of the most important skills for students entering the work force is knowledge and control of themselves so that they can work autonomously and effectively with others. Flavell in Dickson (1981p.57) writes that "concrete metacognitive experiences and associated actions can provide input to permanent metacognitive knowledge, which in turn will influence future experiences and actions".

Kovac-Cerovic (1996) considers metacognition as the "...core phenomenon of development envisioned by Vygotsky..." (p.181). Vygotsky highlighted the importance of learning being framed through metacognitive and reflective experiences such as 'hesitancy', 'confusion', 'doubt', 'not-being-sure-what-to-do-next', as part of a journey leading to the 'aha' experience of certainty (Vygotsky, 1978). Self-reflection enhances students' ability to monitor, assess and improve their

performance and thinking; and hence promote deeper learning (Branch, Grafelman & Hurelbrink,1998; Reiman & Thies-Sprinthall,1998). Social interaction appears to be essential as an aid to scaffold the metacognitive process (Restaino-Keller & Moss Handle, 1996). Kovac-Cerovic (1996) emphasise the use of "social interaction as the major vehicle for constructing metacognitive development..." (p.190). Syrjalá (1996) explains that dialogue "...allows the opinions of all the participants to be heard and developed" (p.265). She advocates opportunities for "real dialogue based on the understanding of one's own restrictions and the realisation everyone needs other people" (Syrjalá, 1996, p.265). Mentoring provides such an opportunity for genuine social interaction, self reflection and metacognition within the educational arena (Bond, 1999).

Mentoring links metacognitive learning and self-reflection with collaborative learning. Hine and Newman (1996) declare that "...learning is expedited by personal awareness of how we are learning (metacognition) and by the social and cultural conditions in which we are

learning - the collective construction of knowledge -" (p.41). Restaino-Keller and Moss Handle (1996) highlight the empowering and supporting nature of the mentoring process to transform learning, stating that the mentee creates "...a new perspective and a new vision. Seeing the world through new eyes is a transformative process"(p.291). Mentoring, therefore, allows metacognition and reflection to flourish within a supportive relationship that promotes constructive and transformative learning to occur.

Through the process of mentoring with third year preservice education students in the subject *Student Mentoring*, this paper explores a range of strategies that are utilised to develop self-reflection, metacognition and mentoring skills. Students are nurtured through self-reflection and mentoring to evaluate their strengths and attitudes, to monitor their learning and mentoring progress and to set goals for effective learning, teaching and mentoring. Individuals who are capable of self-reflection and metacognition are able to examine their own internal processing mechanisms. Students' metacognitive awareness and perceptions of their own thinking were explored through collaborative, practical activity, which took the form of interactive dialogue, mentoring and reflection.

Strategies that foster self-reflection, metacognition and mentoring skills:

Research has shown that perceptions of individual metacognitive capability improve when pre-service educators are encouraged to talk together, engage in public reasoning, share problem solving responsibilities and otherwise jointly construct knowledge and meaning (Hine and Ismail, 1997). Frost (1994) warns that to be effective in mentoring, there are twin responsibilities, claiming "if mentors are going to be able to facilitate critical reflection...they need to be highly reflective practitioners themselves and they need also to be committed to...the enhancement of the reflective capacity" (p.140), Flavell (1987) recommends the mentor - mentee behaviours of 'careful monitoring, regulation and decision making'; open 'communication'; willing 'explanations' and 'justifications'; 'evaluation of alternatives'; 'planning'; 'inferring' and 'social cognition'; to enhance the metacognitive and self reflective processes (p.27). Such behaviours will promote both interpersonal and intrapersonal awareness and understanding, which will foster cognitive, affective and social growth of both the mentor and their mentee.

In the subject *Student Mentoring*, a variety of strategies which actively foster self reflection and metacognition were employed to develop effective mentoring practice and skills.

Specific examples of strategies:

1. Metacognitive reflection / Wraparound sessions:

Metacognitive "debriefing" is a strategy employed within the mentoring subject. Debriefing is used at the end or sometimes at the beginning of an activity or discussion as a wraparound session to enable students to reflect, monitor, regulate and evaluate their own and their peers' thinking in relation to the mentoring topic, skill or strategy. (Hine, and Ismail, 1997, Fogarty, 1994). At times this wraparound session, similar to a round robin idea, would take the form of students presenting a visual symbol, physical gesture or movement, making a sound or singing a few bars from a song representing how they felt about a session, activity, skill or concept. Students are instructed not to judge the responses but to accept all ideas in a rapid progression. Wraparounds are also effective when used as a metacognitive planning tool for students. Wraparounds were often used at the start of the day to begin a new session as a means of reviewing the learning from the day before. This aided in linking the two sessions and reflecting upon the development of one's thinking and mentoring understandings. The wraparound afforded students an opportunity to enhance their thinking, mentoring and communication skills. It provided closure by asking students to analyse their

use of specific skills or what they learned from the content through recall, analysis and synthesis of information. Also the wraparound provided an opportunity for transference and bridging of concepts and skills to the future mentor/ mentee sessions. As the content of wraparound activities focussed upon mentoring skills and concepts, internal dialogue was shared promoting reflection and metacognition. This strategy fostered critical reflection about the development of mentoring skills and strategies. The pivotal point of mentoring is the establishment of beneficial interpersonal relationships based upon effective communication (Kerka, 1998). Mentoring is a vehicle for dialogue, which serves to deepen mutual understanding (Syrjälä, 1996). A wraparound promotes metacognitive reflection while developing the mentoring skills of dialogue, communication and shared understanding. Some examples of wrap - around statements included:

- ***One way I contributed to my group was...***

- ***I can use the information I learned to day in my future mentoring sessions by...***
- ***One frustration I felt during this activity was...***
- ***After completing this activity one question I have is...***

- ***Yes... I agree with the statements made by ... because ...***
- ***Yesterday we said and last night I was thinking that.....in relation to mentoring***

2. Buddy to buddy conferencing:

At the beginning of the subject, students chose a "buddy" from within the group. These were randomly chosen by the students (and could be anyone in the group except a friend). Buddies exchanged phone numbers, addresses and emails as it was recognised that communication plays a significant role in effective mentoring. Carruthers (1993) alleges that partnerships that are freely chosen are the most effective. The role of a "buddy" was a supportive relationship outside of the mentoring subject, where issues and problems could be aired, discussed and solved, so that each mentor had a "contact person" at any time. As Peter commented on the buddy system:

"The goal setting was something that we focussed on in the subject and I found that a bit strange when we were doing it but I guess ultimately it was because I was already doing it and what it's done then is made me able to articulate that to others... I've done this with some of the other mentors, so that was the buddying thing that we had going.... And I had rapport with them and we were helping each other through that and goal setting". Peter

Buddies interacted with each other at mutually convenient times in a conferencing mode, reflecting on issues, clarifying goals, providing one to one feedback on situations and activities in a personal, verbal transaction that focussed on analysis and synthesis. Sullivan (1992) and Schwiebert (2000) emphasize the importance, even in informal relationships, to clarify expectations and establish goals for the relationship, to prevent future misunderstandings and assist in time management. The importance of mentors listening to, and sensitively providing constructive feedback, both positive and negative, in "private, and in a setting that is as nonthreatening as possible" is emphasised by Schwiebert (2000,p.103). This is emphasised by Susan when she states:

" I found forming a goal difficult to start with. I immediately had a goal in mind, to improve my interpersonal skills, and communication skills, specifically with my buddy... in talking I will have to revise it as I think it is a long term goal.....My buddy and I decided to communicate by email... as we don't have much opportunity to meet

at Uni. Another plus for me with this contact is that I would feel uncomfortable ringing Ruth up, not knowing each other and not having a lot to say to each other. This way we were building a relationship more comfortably, and getting to know each other. There's no awkwardness with email, as there would be with telephone contact.....through this contact I have formulated my goal and by the next mentoring meeting I will have developed a good level of rapport with my buddy. My goal is going really well and Ruth and I are keeping in regular contact, and we are getting to know each other" Susan

Conferencing was used as a monitoring strategy to foster self regulatory and developmental learning. It was modelled and used in the classroom to periodically provide feedback to peers, engage peers in the act of buddy to buddy conferencing, monitoring progress, make necessary adjustments and reflectively mediate each other's mentoring behaviour and actions. Students practiced the skills of mentoring through peer mentoring with their buddy and engaged in the cognitive coaching of each other. Through the process of putting ideas into words and dialoguing with a supportive 'buddy', students internalised concepts at a deeper level and metacognitively monitored their thinking, ideas and mentoring skill development.

3. Self reflective journals:

Students were encouraged to maintain a reflective journal throughout the duration of the subject and during their mentoring sessions with their mentees and write in it on a regular basis. Journals were often brought to mentoring sessions and shared with buddies or in small groups. They provided a useful way for students keep ongoing records, self reflect, record their learnings and write self critiques, as Denise wrote in her journal:

' I don't think I have travelled very far. Perhaps a suburb or two. I deemed myself a passenger of the mentoring bus. I was ignorant to the idea that the lecturers were tour guides. I lazily assumed that they were the bus drivers and I sat back for a rest. I needed to seize the steering wheel and direct my own learning. At some point in the journey, I did step off the bus and attempt to walk the distance but I soon tired. The bus passed me and I could see through the windows the learning of the other passengers, who had now taken over the control of learning' Denise

Self reflection through journals encouraged the reflective use of metacognition namely, reflecting upon thinking before, during and after the process, pondering on how to proceed and how to improve. The use of weekly journals required that the students identify key points from the mentoring sessions and pose questions that remained unanswered drawing together experiences and making connections. Self-reflection enhances students' ability to monitor, assess and improve their performance and thinking; and hence promote deeper learning (Branch, Grafelman & Hurelbrink, 1998; Reiman & Thies-Sprinthall, 1998) as Paula depicts in her journal entry;

'My development as a mentor has seen me learn an array of skills and strategies that can be used in my future life. I have learnt how to develop rapport and how valuable it is in teaching and developing mentor relationships; how to use sensory acuity and how it can be used effectively. Mentoring has further enhanced my confidence and competence as a mentor, teacher and person. Developing goals based on the theory of SMARTIES, allows me to set personal goals more frequently and realistically challenging. Listening skills have been further developed to allow me to question and clarify my understanding. More importantly for me was leading a conversation which

had proven to be a challenge in itself....Being a mentor is one of the most satisfying experiences I have had. It has enabled me to contribute something back to others and finally obtained a new perspective, opinion and approach to life. ..Mentoring has helped me throughout my personal life, as I have become more confident and respect myself, knowing that I am able to achieve anything that I set my mind to. As a teacher, it has enhanced my teaching skills and styles.' Paula

Reiman and Thies-Sprinthal (1998) found that experiences without reflection make no impact on moral and conceptual development. Structured reflection experiences are needed, through reflective journals, to guide the 'reflective process', as Peter in his journal wrote:

" Knowledge does not equal skill. The insights I have gained are an effective blueprint, and a firm foundation on which to base my future practice as a teacher and mentor. I need to employ my insights in real practice if skills are to be developed. I need to practise and habituate careful observation skills to discern foreseen and unforeseen indicators of outcome achievement. I need to practise active and reflective listening in their appropriate contexts. I need to reflect on these experiences and other professional ideas to make accurate interpretations of my observations and understanding. I need to draw on existing knowledge and search for new knowledge to address the learning needs I come across. Throughout all, I need to continue in honest reflection with ongoing feedback to, and input from, my own mentors (including recorded texts), so that I may grow with fresh vigour and not become stale or dried up". Peter

and Paula wrote in her journal:

' After meeting with my mentees I needed to reflect on what had happened and what advice was given. Reflecting on what happened is important and assessing how I, the mentor performed is valuable to one's development'. Paula

4. Small group mentoring:

Students were randomly assigned or chose their own small group frequently for activities during the course of this subject. Small group work provided a model for future mentor-mentee relationships where students practised the skills of mentoring in a supportive environment. This enabled students to self reflect, check their reflections with others and offer constructive feedback on each other's skill attainment. In small groups students were responsible for their own learning and also the learning of the group. People often respond more comfortably when in small group situations rather than large groups, as one student, Nick commented:

"It helped with our teaching, I found the building rapport aspect of it, the people skills, the communication skills will come in handy with teaching, and also in general life experiences and stuff, just meeting people, getting along with them and stuff like that and the actual support network which is the actual mentoring, what mentoring is, I found really good, you can bounce stuff off people, just being able to actually put an idea forward, get feedback on it, from your peers, from someone that's in your situation, I found stuff like that really helpful". Nick

Social interaction appears to be essential as an aid to scaffold the metacognitive process (Restaino-Keller & Moss Handle, 1996). Kovac-Cerovic (1996) emphasise the use of "social interaction as the major vehicle for constructing metacognitive development..." (p.190). Syrjälä (1996) explains that dialogue "...allows the opinions of all the participants to be heard and developed" (p.265). She advocates opportunities for "real dialogue based on the

understanding of one's own restrictions and the realisation everyone needs other people" (Syrjälá, 1996, p.265). Mentoring provides such an opportunity for genuine social interaction within the educational arena (Bond, 1999).

According to Vygotsky (1978);

"We have also come to know a great deal more about the significance of collaborative learning, for many now believe that how we come principally to know ourselves is through the interaction with each other. Beginning with the work of we have come to the view that thinking is a social activity, initially shared among people but gradually internalized to reappear again as an individual achievement. The conception of mind inherent in the constructivist view not only is active in nature, but also seeks out dialogue and discourse with other minds. These social settings provide an audience for an individual's attitudes, opinions, and beliefs, where audiences request clarification, justification, and elaboration. Learning with understanding is more likely when one is required to explain, elaborate, or defend one's position to others, as well as to oneself; striving for an explanation often makes a learner integrate and structure knowledge in new ways" (p.158).

Mentoring links metacognitive learning and self-reflection with the collaborative learning that is encouraged through small group mentoring. Hine and Newman (1996) declare that "...learning is expedited by personal awareness of how we are learning (metacognition) and by the social and cultural conditions in which we are learning - the collective construction of knowledge -" (p.41). Restaino-Keller and Moss Handle (1996) highlight the empowering and supporting nature of the mentoring process to transform learning, stating that the protégé creates "...a new perspective and a new vision. Seeing the world through new eyes is a transformative process"(p.291). Mentoring, therefore, allows metacognition and reflection to flourish within a supportive teaching-learning relationship, Restaino-Keller and Moss Handle (1996) reveal that "by engaging in dialogue, setting tasks and exercises, creating dichotomies, the mentor challenges the protégé and forces a situation of cognitive dissonance and reflection" (p.291). It is this cognitive disharmony that promotes self-reflection, and leads to deeper internal thought processes. These, in turn, transform into deeper learning. Mentors will need to develop a substantial repertoire of cognitive strategies to apply to "...a wide range of learning and problem-solving situations" (Hine and Newman, 1996, p.39).

5. Visualisation:

Visualisation is the act of mentally imaging or picturing in the mind an idea or situation, imaging or seeing the unknown. Visualisation plays a critical role in helping us remember things as well as helping us see and plan the future, as Annie commented:

' In the initial meetings that we had as a group .. I think you said everyday before you wake up or before you go to bed, think of some goals that you want to achieve. Well I've been doing that each day and it's really working' Annie

Planning is an essential characteristic in metacognition and mentoring. To recall a mental image of something seen previously is one level of visualising, while imaging an unknown future event is another feature of this ability to visualise things mentally. Visualisation can be used to recall and reconstruct as well as imagine, invent and construct new ideas as Susan demonstrated in one journal entry:

' Ruth and I were both very interested in the eye pattern movements today. It links well to her goal of developing sensory acuity, so she'll be able to add this skill to her overall development of sensory acuity. I was really amazed that you can tell how a person is thinking through their eye movements. When we were visualising...when Ruth was imagining her room, her eyes went right to the visually remembered position. When James was telling us to imagine yourself painting your room a different colour, Ruth's eyes went horizontally right, to audio and sounds. I asked her if she was hearing any sounds while she was thinking and visualising and she was!!! When she painted her room a few weeks ago the neighbour was using his chainsaw, so she kept turning the radio up!! During this visualising exercise she kept hearing the chainsaw and the radio!' Susan

In goal setting, a central characteristic of mentoring, we visualise a future time and image that imprints on the mind and enhances the verbalisation process of learning. In mentoring, visualisation is an effective skill that can be used as a planning tool and anticipation strategy. In the subject *Student Mentoring*, students were provided with opportunities to utilise visualisation strategies in goal setting, picturing their first meeting with their mentees, time management and seeing their role as a future mentor.

Peter stated;

' As I visualise the future I can see that you're getting the mentees to direct their own learning in a sense and for me that's been a huge important thing because the intrinsic value of learning is a big issue for me ..if you're aiding people with their goals that is where you're getting the intrinsic motivation... instead of having to say you're going to get a pat on the back or a lollypop or a big handout of money to make them learn, it's saying this is something that I want, this is something that I need in my life to feel satisfied and to reach my potential or just to enjoy life.... They're finding it out for themselves, and so all you're doing is helping them to come to that understanding, to visualise it. Visualisation can be used with goals too... visualisation is a part of mentoring... through this you're really giving people the internal motivation' Peter

Conclusion:

Mentoring offers a positive solution for the changing face of education. Smith and Kolosick (1996) declare that "together faculty and students face new challenges and questions regarding their roles in the emerging learning paradigm" (p.146). They claim that "teachers no longer need to be catalysts, vehicles, and judges for the learning process.... students can assume responsibility for meeting their own needs..." (Smith & Kolosick, 1996, p.146). This personalisation of education is possible through mentoring (Bond, 1999), as the shifting focus upon the teacher, changes to facilitating and guiding, rather than simply delivering (Smith & Kolosick, 1996).

Schwiebert (2000) claims the mentor provides the protégé with an assortment of benefits and opportunities; including "...opportunities for recognition and encouragement, honest feedback, advice on balancing responsibilities, and knowledge of the informal rules of the organization" (p.101). Kerka (1998) states that mentors provide "practical know-how and wisdom ('craft knowledge') that can be acquired only experientially" (p.3). Schwiebert (2000) claims mentors assist their protégés in "removing organizational barriers, and negotiating the 'system'" (p.21), as well as helping them "...overcome personal and social barriers" and exposing them "...to new relationships and opportunities" (p.25). Bond (1999) adds to this, the mentee benefits of

- remediation;
- encouragement;
- guidance;
- independent learning;
- improved self-confidence and self-esteem;
- increased personal and professional networks;
- increased knowledge, skills and expertise;
- access to role models;
- access to resources;
- solutions to perceived obstacles;
- peer support
- development of interpersonal skills.

Bond (1999) suggests benefits for mentors include:

- increased confidence;
- personal satisfaction;
- deeper understanding of self and others;
- improved management skills;
- deeper learning;
- stronger sense of leadership;
- improved understanding of existing barriers;
- heightened sense of self worth;
- improved interpersonal skills.

Without such benefits, Kridal, Bullough & Shaker (1996) assert that, the relationship would fail. Mentoring programs appear to be both appropriate and applicable to the "needs of students within the current educational environment" (Bond, 1999, p.v). Mentoring programs serve a dual purpose; they are client-centred and thus can target 'at risk' students, as well as promote individually challenging and relevant curricula (Bond, 1999). Bond (1999) affirms that there is "a growing body of evidence.... that links mentoring activity with positive student outcomes" (p.5).

Murray (1991), and Klopff and Harrison (1981) deny the mentor relationship is all one-sided. Forster (1998) affirms that such relationships can provide both mentor and mentee with "encouragement, inspiration, new insights and other personal rewards" (p.v). Murray (1991) outlines specific benefits for mentors as including "...enhanced self-esteem, revitalized work interests, professional assistance on projects, friendship, and fulfilment of development needs among others" (p.53).

The benefits of mentoring to the educational system are extensive. Mentoring promotes a collaborative rather than a competitive environment (Bond, 1999). Mentoring programs are cost-effective, available to all, increase talent identification and nurturing, enhance the development of learning strategies and study skills, foster intrinsic motivation and open communication, and promote autonomous learning (Bond, 1999). Explicit attention to the metacognitive promotes transfer and application of knowledge, skills, concepts and attitudes in new situations and prepares mentors for the role of mentoring mentees.

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