

A self-efficacy approach to holistic student development

Lesley A. Wood* and M.A.J. Olivier

UPE Advancement Programme, University of Port Elizabeth, P O Box 1600, Port Elizabeth, 6000 South Africa
indlas@upe.ac.za

* To whom correspondence should be addressed

Increasing numbers of students are arriving at tertiary institutions lacking in the skills needed to cope with the social and academic demands of higher education. Tertiary institutions are, therefore, faced with the task of equipping students with the skills needed to ensure that they can perform at an acceptable level. One such attempt to address this problem in a foundation course offered by the University of Port Elizabeth (UPE) is outlined. It is argued that student acquisition of the necessary social and academic skills will be more successful if they first believe they are capable of performing well and attaining the goals they set for themselves. The academic and life skills module (UPA111), offered in the foundation programme (UPE Advancement Programme), is designed to increase the self efficacy of students so that they can approach their tasks with confidence, a positive attitude, and the belief that they can succeed. It is explained how self efficacy is developed in students in the foundation programme in order to better prepare them for tertiary studies. Preliminary evaluation of the programme indicated that it does increase the self efficacy of students.

Introduction

University education should be about more than just obtaining a paper qualification. Education has to be relevant to the social, political and economic environments and should, therefore, focus on the holistic development of the student (Harris, 2001:21; Johnson, Monk & Hodges, 2000:180). It has been well documented that school leavers need to possess certain core competencies in order to help them cope with the demands of life after school (Greyling, 1995:197; Vermaak, 1995:1; Lindhard & Dhlamini, 1990:6) but, according to recent research (Wood, 2004:5), schools are not adequately equipping the learners with the necessary skills to do this.

The causes of student under preparedness in South Africa have been extensively discussed in literature (Wood, 2004:89; Hutchinson, Cantillon & Wood, 2003:810; Lethoko, 2002:246; Yoon, 2002:485; Johnson *et al.*, 2000:183) and result in the student arriving at tertiary education lacking in the skills needed to cope with the academic and social demands of the tertiary environment.

The problem of under preparedness of students is evidenced by the following: lack of work ethic; inability to manage time; difficulty in working independently and taking personal responsibility for actions; inability to organize and structure assignments or conduct basic research; underdeveloped critical thinking skills; lack of interest in reading further than is necessary to pass examinations; and a low level of literacy in general (Wood, 2003; Woolard, 2003).

This phenomenon of under preparedness poses the question of how tertiary institutions can help students to become prepared. Students need to be empowered to develop self management skills and to take personal responsibility for their education. A tertiary education should therefore focus not only on the development of academic skills in students, but also facilitate the cultivation of a wide range of life skills, in order to promote effective functioning, both in the university environment and later in life. The purpose of this holistic development of the student will not only be to maximize his/her employability after graduation, but will also have lifelong benefits and ultimately benefit society as a whole. The university will consequently gain in terms of a faster throughput rate of students, since a student with well developed academic and life skills will be less likely to fail and have to repeat (Department of Education, 1996:17). This is an important consideration, in the light of the funding guidelines that require tertiary institutions to ensure that students complete their degrees in a prescribed time (Ministry of Education, 2004).

Research has suggested that the acquisition of skills to improve student performance will be enhanced by first changing students' cognitive self appraisals (Linnenbrink & Pintrich, 2003:136; Schunk, 2003:159). One way of achieving this is to develop the perceived self efficacy of the student. The academic and life skills module pre-

sented in the foundation programme at the University of Port Elizabeth aims to do just this. Foundation programme refers to a programme designed to increase student access to higher education, specifically for those students who come from schools in historically disadvantaged environments. Students who do not meet standard admission requirements may enrol in a foundation programme, successful completion of which will guarantee admission to mainstream degree courses.

Self-efficacy

Self efficacy refers to the belief that the student holds about his or her capability 'to organize and execute the courses of action required to produce given attainments' (Bandura, 1997:3). The problem therefore facing tertiary institutions, and foundation programmes in particular, is how to increase the self efficacy of students, to ensure that they benefit from input provided to help them develop the necessary academic and social coping skills.

Bandura (1997) argued that self beliefs are influenced by the interaction of three factors, namely, the behaviour of the individual, the environment, and personal factors. A positive attitude and feelings towards a subject (personal factors) will encourage the student to work hard (behaviour), which will elicit positive feedback from the lecturer (environment), reinforcing beliefs of self efficacy in the student. Bandura called this reciprocal determinism (Pajares, 2002:8).

This interaction provides the setting for the four sources of self efficacy beliefs, namely, mastery experiences, vicarious experience, social persuasions, and physiological states (Pajares, 2002:10; Bandura, 1997). Mastery experiences, or expectations of doing well in a certain activity, lead to a positive, confident approach to that activity and encourage behaviour that will most likely lead to success. This experience of success raises feelings of self efficacy, thus the student will be more likely to continue to apply him/herself to the specific activity, increasing chances of subsequent success.

Vicarious experiences refer to the observation of the behaviour/attitudes of other people and cognitive appraisal of what led to their success or failure. The student can then adopt and internalize the successful behaviours/attitudes observed in others, and avoid those that contributed to failure. Social persuasion takes the form of feedback from others and its influence is greater when the student views the 'persuader' as someone who is credible, trustworthy and possesses expertise (Bandura, 1997).

The fourth source of self efficacy beliefs is physiological states. The student interprets bodily reactions and the accompanying feelings when faced with a particular task, so that a higher pulse rate and feeling of anxiety could be interpreted by the student as indicating that they are not capable of performing the task well, and this will lead to lower self appraisal of efficacy (Monroe, 2002:5).

The self-efficacy of foundation students

Students who are enrolled in a foundation programme tend to have a low academic and social self esteem (Wood & Knipp, 2003). Academically, they have not performed sufficiently well to be admitted to mainstream degree programmes and this negatively influences their self beliefs about their academic ability, resulting in low levels of self efficacy in these areas. This low academic self concept is compounded by low social self esteem, since they often come from socially and economically disadvantaged backgrounds, where they have not been exposed to suitable life skills teaching and/or modelling, either in the home or in school (Johnson, Monk & Hodges, 2000:179; Steyn & Van Wyk, 1999:41; Fasco, 1998:295)

In addition, the under resourced environment of such communities does not foster the building of a healthy self esteem in the learners, due to a lack of opportunities to engage in extramural activities or other forms of cognitive and socially stimulating activities (McCallister, Blinde & Weiss, 2000:36; Steelman, 1995:15). Parental lack of involvement is another characteristic of under resourced communities that can contribute to the poor academic and social development of the student (Elias, 2003:19; Morse, August, Bacon, Bonesteel, Cray, Cuadros & Sieger, 2001:82)

The benefits of self-efficacy beliefs for students

Self efficacy beliefs have been linked to various academic and social benefits in students. Students with high self efficacy beliefs are considered to be more effective problem solvers and are more likely to persist when faced with difficulties (Bandura, 1997:214). They also manage time better, are more enthusiastic about their work, set more challenging goals for themselves and are more open to feedback in tended to improve their performance (Schunk, 1995:83; Ross, 1992:52). High levels of self efficacy assist students in dealing with failure and coping with academic anxiety (Bandura, 1997:235) and enhance learning and examination performance (Jackson, 2002:250).

Students with a high level of self efficacy will also be more likely to use and apply the knowledge and skills they acquire at university to help them to attain their goal of obtaining a degree (Pajares, 2002:6). Fasco (1998:291) found that learners could be helped to overcome past emotional and academic problems when they received intervention to improve their feelings of self efficacy. Self efficacy leads to a higher academic and social self esteem in students, with the result that they will be more likely to attempt tasks (Bailey, 1999:360; Cheung & Cheng, 1997).

It is important, therefore, that tertiary institutions, and foundation programmes in particular, take proactive steps to increase student self efficacy. For this reason, an academic and life skills module, University Practice for Advancement Students (UPA111), was developed at the University of Port Elizabeth, as part of the UPE Advancement Programme (UPEAP). The acquisition of social skills is seen as vital to support academic performance, since students who cope well socially tend to perform better academically (Struthers & Perry, 2000:582).

The academic and life skills module

The academic and life skills module for foundation students at the University of Port Elizabeth spans one academic year and is closely integrated with content subjects, concentrating on increasing students' belief in their abilities to reach their goals and providing the necessary support to do so. Students meet with the same facilitator twice a week, in groups of 15 and the facilitator also acts as mentor for the individual students. The module comprises three main aspects the teaching of academic and life skills in a small group context; mentoring of students; and the use of portfolios and experiential learning methods to encourage reflection and introspection by students.

The development of self-efficacy in the academic and life skills module

Recent research conducted by Wood (2004) confirmed Bandura's

(1997) theory about the reciprocal influence that the environment, the person's behaviour and personal attributes have on the development of self efficacy. This researcher carried out a conceptual analysis of the concept of the development of self efficacy and identified four inter dependent and mutually influencing criteria essential to attain this, namely intrinsic growth, the development of an internal locus of control, positive interaction with the environment and reflection.

Figure 1 outlines how each of the four criteria essential for the development of self efficacy are included in the academic and life skills module offered in the foundation programme at the University of Port Elizabeth.

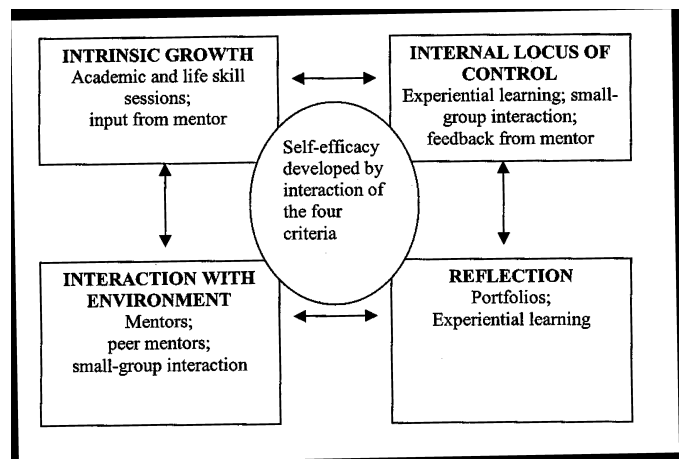


Figure 1 The development of self efficacy in the academic and life skills module

Intrinsic growth

The concept intrinsic growth refers to the improvement of knowledge, skills and attitudes of the individual in order to empower him/her to successfully complete tasks or attain goals. With foundation students, this is achieved by academic and life skills instruction in small groups of no more than fifteen students, in order to maximize opportunity for interaction in the class. In the first semester, the module covers topics such as motivation; the demands of tertiary education; resources on campus; goal setting and time management; problem solving; stress management; building a healthy self concept; and dealing with issues such as Aids, sexuality, and substance abuse. The topics in the second semester focus more on interpersonal skills development (communication, assertiveness, conflict resolution, relationship building) and employability skills.

The input from these topics enables the under prepared student to improve his/her knowledge and skills in this area to make the necessary changes on cognitive, affective and behavioural levels. Each topic provides an opportunity to identify ways of applying what has been learned, thus permitting the student to create mastery experiences to enhance self efficacy beliefs.

Intrinsic growth is also enhanced by feedback from the facilitator/mentor. Students are assessed via formal assignments and reflections. However, these are marked in such a way that they become a tool that the facilitator can use to encourage and motivate the students, and thus increase their feelings of self efficacy (Schunk & Swartz, 1993). Comments, questions and challenges are written on the assignments, which the students must then reflect on and use for setting goals to implement changes if necessary. The life skills sessions also use experiential learning methods (role plays, group discussions, games) to enable the student to reflect on and holistically engage in the learning experience, and question beliefs, attitudes and misconceptions, as well as identifying the desired behavioural changes necessary to promote intrinsic growth.

Internal locus of control

Locus of control can be defined as the perceptions one holds regarding

personal responsibility for success or failure. People with an internal locus of control believe they are in charge of their own destiny, and that their actions can make a difference to the outcome. An external locus of control, on the other hand, attributes success or failure to luck, fate or the actions of others (Hungerford & Volk, 1990:9).

The typical foundation programme student is not likely to have an internal locus of control, since research (Simons, Irwin & Drinnin, 1987:493) has suggested that students from non supportive backgrounds tend to exhibit an external locus of control. An external locus of control is also more prevalent in societies where there is a great deal of change, such as experienced in South Africa in the past decade. Fazez and Fazez (2001:350) are of the opinion that it is the responsibility of the university to “nurture undergraduate potential for autonomous learning”.

The experiential method of instruction employed by the facilitators of the life skills sessions promotes the shifting of the locus of control away from the teacher towards the student him/herself (Woolfe, 1992:1). Classes are learner centred in that the students are encouraged to participate and engage in the learning process through activities such as debate, reflective writing and role plays. The small group dynamics encourage critical evaluation of personal beliefs and opinions and those of others. This increases the development of an internal locus of control, as does the opportunity to apply the changed behaviour (Hungerford & Volk, 1990:15).

The facilitator is there to guide and give input when needed, but sessions are structured in such a way that students engage in small group discussions and through this, can determine what is relevant for them. They also become aware of their own experiences and those of others, developing critical thinking skills as they debate their opinions with their peers. Students are encouraged to take responsibility for their own learning, since strong bonds are formed within the groups and the students learn to challenge one another within a safe, supportive environment.

An internal locus of control can also be promoted by the facilitator/mentor, by means of provision of constructive feedback, including questions to challenge the students' accountability for their actions and goal attainment. This is enhanced by the fact that student behaviour is easily observable in the small groups and close links can be forged with the individual students, both in the life skills sessions and via mentoring.

Interaction with the environment

The concept interaction with the environment refers to positive interaction with others in the immediate environment and constructive and creative use of available resources. For students in the foundation programme, such interaction provides an opportunity for self efficacy beliefs to be enhanced, particularly by the two sources of vicarious experience and social persuasion (Bandura, 1997:101).

According to Schunk (2003:162), role models play a significant role in producing self efficacy beliefs. For this reason, mentoring is a valuable tool for influencing the student to adopt constructive thoughts and actions to produce a high level of self efficacy. The facilitators of the small group sessions also act as mentors for the students. The facilitators are ‘masterly models’ they have credibility to the students because they are regarded as being experts in academic and social skills (Bandura, 1997:99) and, via modelling, they provide the opportunity for vicarious learning.

Mentoring sessions also provide an ideal opportunity to raise self efficacy beliefs through social persuasion. Walton (1979:124) investigated the factors that predicted minority student success and found that ‘the person who functions as a role model for the minority student is perhaps the single most important key to retention’. The more value that the student places on the relationship with the mentor, the more likely he/she will be to emulate the intellectual and other attributes that the latter displays (Bandura & Huston, 1961:312). The

mentors have ample opportunity to create a warm relationship with the students, via their regular contact in small group sessions, as well as in the individual mentoring sessions.

Peer mentors are also used to provide an opportunity for raising self efficacy through vicarious experience, since ‘persons who are similar or slightly higher in ability provide the most informative comparative information for gauging ones own capabilities’ (Monroe, 2002:3; Bandura, 1997:96). The perceived similarity between the students and the peer mentors, in terms of age, ethnicity, competence and experience, means that the latter are an important and credible source of information for gauging what behaviour leads to success. The peer mentors have already attained the goal that the foundation students are striving towards (passing the foundation module). They are carefully chosen for their academic and social competence and are available to students for guidance and support. The peer mentors share their perceptions and experiences, thereby indicating to students which behaviours and attitudes are necessary for success. In this way, they provide an important source of social support for the students.

Reflection

Within the context of life skills teaching, reflection involves the students analysing their own knowledge, skills and attitudes and relating this to what they have learnt, in order to arrive at a deeper understanding of themselves and their interaction with their environment. The final aim of reflection is to reach a higher level of cognitive, social, emotional and academic functioning. Positive reflections raise self efficacy and motivation because students perceive they are learning and making progress (Schunk, 2003:162), whereas negative reflections can also be useful to highlight more constructive strategies for goal attainment (Schunk & Ertner, 2000). Physiological states such as stress, anxiety and fatigue are also a source of self efficacy beliefs (Bandura, 1997:101). Reflection and introspection allow students to become aware of their thoughts and emotional states, which can then be modified if they are negatively affecting their self beliefs.

The academic and life skills module is structured in such a way that students can reflect on their performances, attitudes and feelings, and identify strategies to improve where necessary. Students compile portfolios for the purpose of reflecting on their academic work, as well as on their personal growth during the year. The students are also required to reflect on their performance in other subjects, and to include such reflections in their portfolios.

The students present their portfolios in front of their group members in the form of an oral, highlighting the personal and academic growth they have experienced during the year and giving supporting examples of it. Should they not have grown in a certain area, they have to analyse why, and identify ways to overcome obstacles to growth. This exercise encourages them to really evaluate their knowledge, skills and attitudes and also increases the development of an internal locus of control, since they alone are held responsible for their growth or lack of it. The experiential learning method of instruction also provides the opportunity for reflection.

Student assessment of the academic and life skills module

A qualitative approach was followed in assessing the module, since the researchers wished to elicit the felt needs and perceptions of the students (Denzin & Lincoln, 1994:2). The qualitative approach is most suitable when the aim of the research is to understand a phenomenon from the point of view of the participants (Creswell, 1998:17) and to elicit thought processes and feelings (Strauss & Corbin, 1998:11).

The participants were selected from the population of students who were registered on the UPE Advancement Programme, using a purposive sampling technique (Strydom & De Vos, 1998:198). Out of approximately 350 students in the foundation programme, to whom the qualitative research questions were submitted, 290 returned them. In line with the phenomenological approach to the research, which aims

firstly to understand the inner life worlds of participants and how they view their reality and, secondly, to describe, interpret and reflect on this (Burns & Grové, 1993:65), the questions were open and designed to avoid unduly influencing the students' responses (Fouché, 1998: 80).

In a qualitative approach, the concept of trustworthiness is used to promote confidence in the findings of the research. Trustworthiness refers to the truth value, applicability, consistency and neutrality of the research (Krefting, 1991:211). In this study, the questions were subjected to peer review and piloted to increase trustworthiness via truth value and consistency (Leedy, 1993:143). The credibility of the research was further ensured by triangulation of investigator, since an independent re-coder was used to verify the analysis (Krefting, 1991:212). Applicability, or how far the findings can be transferred to similar populations (Rodwell, 1998:101), was attempted by describing the research approach in depth and by comparing the findings with literature to ascertain if they are supported by other research.

The following open questions were posed to students in the form of a written questionnaire, which was filled in anonymously to encourage honesty and openness in the responses.

- What impact (if any) has UPA had on your academic life?
- What impact (if any) has UPA had on your personal life?
- What impact (if any) has your facilitator/mentor had on you this year?

The answers were analysed and coded into themes that emerged from the data, according to the eight steps proposed by Tesch in Creswell (1994:157). These themes are discussed here, with reference to the students' responses, relevant literature and the essential criteria of self efficacy as identified from the research conducted by Wood (2004).

Self-management

Students indicated that the module equipped them with time management and organizational skills that enabled them to balance their heavy workloads and social lives. This indicated intrinsic growth in terms of life skills and the formation of an internal locus of control.

It has increased my academics because I know what I want and am able to get it through academic and time management, therefore I experience less stress and I can socialize better.

Students responded that they were now able to solve their problems and make use of available resources, when necessary. They seemed to enjoy confronting their problems and attempting to do something about them. They had the confidence to admit when they could not do something and were more willing to ask for help, especially since they regarded the mentors not only as valuable sources of advice, but also as people who helped them believe in themselves. These responses indicated an increase in an internal locus of control and in intrinsic growth in terms of skills. Comments included the following:

I look for the fault in myself first now, not in the lecturer.

[UPA] increased my confidence, improved my way of studying and made me develop mentally and socially.

It helped me a lot, now I feel like a changed person and I am sure that I can deal with many difficult things and I know where to go when I have a problem.

According to Zimmerman and Martinez Pons (1988:284), people who possess effective self management skills know how to set goals, are effective problem solvers, think positively when faced with academic demands and challenges, use available resources, structure their environment to suit their goals, and are able to reflect on the reasons for failure and reset goals for future improvement. This description is very similar to that of a person with self efficacy (Linnenbrink & Pintrich, 2003:104; Woolfolk Hoy & Milner, 2003:273). Students who learn and apply the skills necessary for attaining their academic and social goals, are able to create mastery experiences which, in turn, increase their feelings of self efficacy and motivate them to continue to develop these skills (Bandura, 1997).

Kennett (1994:37) found that programmes designed to increase

self management tend to be more successful when they span the entire academic year and provide opportunities for regular and intense individual counselling on academic and other issues. This finding provides a strong argument in favour of the approach adopted on the UPE Advancement Programme, rather than a less individualized, workshop type approach to life skills teaching as adopted at some tertiary institutions.

Improvement in academic skills

Students also valued the guidance they received concerning study strategies, particularly for pre-reading and summarizing. Since most of the students are English second language speakers, reading of academic textbooks is something they struggle with. The students therefore experienced intrinsic growth in terms of skills and expressed that they were more in control (internal locus of control) of their academic performance.

Academically, I have become more focused and determined to do well.

It improved my language and taught me many things I did not know before and now I am confident in passing the exams.

It has increased my academics because I know what I want and am able to get it through academic management and time management, therefore less stress and I socialize better.

Academic self efficacy leads to improved motivation and performance (Tuckman & Sexton, 1990:469) and increases goal directed behaviour (Kennett, 1994:40). Students who believe that it is within their power to improve their marks by adopting effective study strategies, will tend to perform better than those who do not believe that they are capable of influencing their academic success. Schunk (2003:160) provides research evidence that modelling, goal setting and self evaluation lead to feelings of self efficacy, increased motivation and enhanced learning. In the UPA course, modelling is provided by the mentors, goal setting is an integral part of the experiential learning process, and reflections provide opportunity for self evaluation. These factors are therefore regarded as vital for improving the students' sense of academic efficacy.

Improved attitudes

The students indicated that the module helped them to adopt attitudes that were conducive to success at tertiary level. Learning how to motivate themselves through positive self talk and adopting a positive approach helped them to cope in difficult times. They indicated that the experiential learning cycle and the habit of reflection had helped them to understand that failure is in fact a valuable learning experience and opportunity for growth. This is in line with the attitude of a person with an internal locus of control. Students also reported that their interaction with others had improved, as they learnt to consider issues from the various perspectives and adopt an open minded attitude to life.

I learnt that you have to have positive self talk to develop confidence and be deaf to negative comments.

... improved my vision towards life, I learnt that there are good and bad times and I have to move on.

Socialism [sic] and interdependence is [sic] a key to a successful life and with the help of UPA, I have managed to achieve this.

Students who have to complete a foundation programme, prior to obtaining university entrance, tend to start the year with a negative approach. They feel ashamed and demotivated at not being admitted to mainstream courses, and the development of a positive attitude is a major challenge facing the facilitators for the UPA module.

This negative approach is grounded in feelings of low worth, in competence, inadequacy, insecurity and low self confidence (Randle, 2001:293), therefore the UPA module aims at turning these feelings into positive ones. This will result in students' having an improved level of self efficacy, since positive self beliefs or self esteem is the most important determinant of behaviour (Bandura, 1995).

Confidence in own ability

The students were of the opinion that their self confidence had improved. They perceived themselves to be more confident to tackle tasks that they would have avoided before, such as oral presentations and essay questions. The encouraging feedback and motivation from the mentors were instrumental in improving their self confidence. Students stated that they felt valued and that it was empowering for them to know that someone believed in them and was concerned about their performance. Improvement in terms of marks, ability to manage their time and organize their lives, and in relationships with others also contributed towards positive self beliefs.

It was nice to know I had someone to always talk to, who was interested in knowing me. It boosted by confidence and helped motivate me in different ways.

I have built a positive self concept and I am managing my time well after the UPA course.

These positive self appraisals encouraged students to engage in activities which increased their intrinsic growth, positive interaction with others and internal locus of control. These beliefs also made students less defensive and more open to critical reflection of their own thoughts, feelings and behaviour.

I finally got to know the inner part of myself. Self confidence has been improved a lot and I now have a very positive outlook.

I felt more confident after discussing my problems [with the mentor] and as a result, I took responsibility which increased my personal development.

According to Ciaccio (1998:11), a major cause of academic failure is lack of confidence. School systems worldwide tend to lower the confidence of those learners who are not academic high achievers, so that by the time they arrive at a university, their academic self concept is extremely negative, resulting in a withdrawal from and resistance to the learning process. Ciaccio (*ibid*:12) states:

Students [who are not academically strong] report a lowering of self esteem from a high of 80% who feel good about themselves in kindergarten, to only 12% six years later.

Students who are enrolled in a foundation programme tend to fall into this category, so that increasing their academic self confidence is a priority. The UPA module places great importance on the building of the students' self confidence, in order to rekindle their interest in, and reduce their resistance to the learning process. Facilitators ensure that they find something positive to say about each student's work, and experience has shown that the students are encouraged by this and that it increases their self confidence. As one student put it:

The comments the lecturer wrote on my assignments really helped me to see the strengths I had within and encouraged me to continue when I felt like giving up because I was put on the UPE Advancement Programme.

The open, communicative environment cultivated in the small group sessions and mentoring sessions is an ideal setting for the nurturing of self confidence (Hamilton & Oswalt, 1998:35). Students' feedback indicates strongly that the mentors have a positive impact on them, in terms of raising their self belief and self confidence.

She [mentor] helped me draw the bigger picture and I was motivated to go on. I know it's up to me to reach my dream, but I maintain that I will be successful because someone was there from the start who believed in me.'

Conclusion

This article has presented an overview of the academic and life skills programme offered as part of the Foundation Programme at the University of Port Elizabeth and indicated how it can contribute to the development of self efficacy in students. Self efficacy was explained in terms of four criteria and their accommodation in the programme. A brief discussion of students' evaluation of the programme indicated that it is successful in contributing to the development of self efficacy in the students.

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