Designing a framework to enhance self regulated learning among college students

Mafa Maiketso Lesotho college of Education

1. Introduction

In this study I am designing a framework to enhance self-regulated learning towards the creation of sustainable learning environment for college students. Such a framework is necessary if their academic performance is to improve and to be sustainable. In order to systematise the discussion of the above in this proposal I will indicate what inspired the study in the background. Then the literature will be reviewed to formulate appropriate constructs to make sense of the empirical data to be collected and to locate the study conceptually. The methodology section then describes how empirical data will be collected and analysed in the context of the research question, aim, objectives and literature informing this study.

2. Background

Students at the National University of Lesotho (NUL), Lerotholi Polytechnique, and Lesotho College of Education (LCE), are increasingly showing low academic performance (Lesotho Times, 22nd July 2011:6). I learnt about this when many students from NUL and these other institutions came to me for counselling with concerns that included poor information processing, reading, writing, motivation to study, test taking skills, passive role behaviours (not taking notes nor participating in discussions). Some students had been frustrated by attempting to remember their texts word for word. Their only goal had been to remember and repeat what was written in the text, and they did not adopt the active problem-solving and thinking skills that were needed in order to deeply understand the material being read.

As a teacher of higher education, I expect students to enter college with some understanding of what it means to be an effective learner and the ability to

apply effective learning strategies. Unfortunately, many students enter college with little awareness of which skills are needed to be an effective learner (Rachal, Daigle and S. Rachal, 2007: 192). Many students don't develop effective learning strategies unless they receive specific instruction and the opportunity to apply these skills.

Besides, for the duration during which I was a mentor to teaching practicing students from NUL and LCE, I learned that the students would be graduating in a matter of months after completing their internship and leaving the teaching practice sites but they could hardly show any measures of critical thinking, complex reasoning and writing. They seemed to lack metacognitive awareness and personal motivation (Butler, 2002: 59). At no point would they reflectively and strategically engage in learning activities that foster self-regulation. This concern resonated with what Jones (2010) discovered in his study in the USA. Having appreciated that education meant the cultivation of the 'knowledge, skills, and attitude that all of us use and live by during most of our lives' (Stone and Friedman, 2002: 199 in Jones, 2010: 1), it was found that many inside and outside higher education community were questioning whether colleges and universities were transmitting these important skills and competencies to students. Reports such Missions of the College Curriculum (Carnegie Foundation for the Advancement of Teaching, (1977) and To Reclaim a Legacy: A Report on the Humanities in Higher Education (Bennett, 1984) criticized the American Colleges and universities for failing to graduate students with 'even the most rudimentary knowledge about the history, literature, art, and philosophical foundations of their nations and civilizations' (Bennett, 1984: 3 in Jones, 2002: 2).

Yet another new study revealed that USA was still grappling with this very challenge. The research of more than 2, 300 undergraduates found that 45 percent of students show no significant improvement in the key measures of critical thinking, complex reasoning and writing by the end of their sophomore years (Gorski, 2011:10).

This observation planted a seed in me that self-regulatory learning strategy could be enhanced in Lesotho's higher institutions of learning.

The need for self-regulatory learning is not exclusive to Lesotho. South Africa faces a similar challenge. Veldman (et al., 2010; Rachal, Daigle and S. Rachal, 2007: 192) established in their studies that a significant number of university students lacked self-confidence, motivation, and time management, as well as general awareness of which skills were needed to be effective learners. In the USA, a study reported that ' few learners are skilled at self-regulating their learning to optimize what they learn' (Hadwin and Winne, 2001 in Azevedo and Cromley, 2004: 523). In Britain too, educationists and researchers discovered that self-regulatory strategy had to be implemented in their schools and universities since, without it, characteristics of self-regulatory learners such as being metaocgnitively aware, planful, strategic, and the interaction between students' knowledge, metacognitive skills, motivation and cognition would be missing (Brown, 1987; Butler, 1998b; Flavell, 1976 in Butler, 2002: 59).

Components of self-directed learning:

Self-regulated learning: According to Butler and Winne, (1995); Zimmerman, (2000) in Heikkila and Lonka, (2006: 99), a student who is regulating his or her learning is able to set task-related, reasonable goals, take responsibility for his or her learning, and maintain motivation. It is also assumed that self-regulated learners are able to use a variety of cognitive and metacognitive strategies. These students are able to vary their strategies to accomplish academic tasks. That means they are able to monitor their strategy use and, if necessary, modify their strategies if task demands change. Learners make decisions about what to learn, how to learn it, how much to learn, how much time to spend on it, how to access other instructional materials, how to determine whether he or she understands the material, when to abandon or modify plans and strategies, and when to increase effort (Azevedo and Cromley, 2004: 523). Self-regulatory learning represents students' engagement in approaches that emphasize integration, synthesis, and reflection. Deep learning is preferred because it represents students looking beyond the signs associated with information (surface approaches) to the more important underlying meaning (Marton and Saljo, 1976 in Laird et al., 2004: 469).

Self-efficacy; Bandura (1986, 1997), self-efficacy is a natural driving force among most students at all levels. It is claimed that students with high levels

of self-efficacy tend to engage in higher quality and more self-regulated learning, and use learning strategies that support deep level learning. This is partly due to their belief that when they face learning obstacles, a demonstration of will and effort (volition) will enable them to overcome this and achieve success (Wolters, 1998 in Ronning 2009: 450). In particular, when things are difficult (curriculum, assignments, workload), students with efficacy expectation will meet the challenges and not withdraw from the situation (Pajares, 1997 in Ronning, 2009: 450). Knowledge of cognitive strategies such as rehearsal, elaboration, and organisational techniques for optimising information processing form part of self-directed learning (Ronning, 2009: 450).

Motivation and volition: Because self-regulatory process leads to attainment of a sometimes distant goal that may be at odds with one's immediate desires, delay of gratification, impulse control, and inhibition capabilities are required. Motivation is needed to fuel these processes and maintain effective progress when experiencing challenges to learning process.

Volitional strategies permit the control of action whenever an individual performs tasks or actions that run counter to his immediate motivation and desires (Kuhl, 1984, 1996 in Garner, 2009: 411). Self-reported volition strategies could include finding ways to convince oneself that to-be learned material is interesting and useful, or being able to work hard enough even if the material is disliked (Garner, 2009: 411).

According to Malcolm Knowels (1975: 18) self-directed learning describes a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. At the same time, Tough (1971), Knoweles (1975) and, more recently, Zimmerman (1989, 1990) associate self-directed learning with a person's ability to:

a) Decide what knowledge and skills to learn.
b) Diagnose his/her learning needs realistically, with help from teachers and/or peers.

c) Translate his/her learning needs into learning objectives in a form that makes it possible for the accomplishments to be assessed.
d) Relate to his/her teachers as facilitators, helpers, or consultants and to take the initiative in making use of their resources.
e) Relate to his/her peers collaboratively, to see them as resources for learning.
f) Select effective strategies skilfully and with initiative.
g) Gain knowledge or skill from the resources utilised.
h) Evaluate his/her work and get feedback from others about the progress.
i) Detect and cope with personal blocks to learning

Conducive Conditions:

Self-regulatory learning thrives in conditions where social aspect that includes interactions with peers and teachers (Patrick and Middleton, 2000 in Butler, 2002: 60) who shape students' task engagement by co-regulation learning (Meyer and Turner, 2001 in Butlerr, 2002: 60).

As has been hinted, self-regulation becomes effective where student are autonomous.

Possible Threats:

Fear of failure – some students tend to avoid situations in which their ability and competence are judged. They may be stuck with beliefs that academic work is hard work, and they give in to laziness and procrastination which ultimately lead to academic failure. Such students tend to seek their fulfilment outside the university context – they are more into leisure time activities, seeing friends, and so on. They concentrate on task-irrelevant behaviour in order to create excuses for their failure. This provides them with an attributional cover, but simultenouesly it also decreases the likelyhood of study success (Jones and Berglas, 1978; Eronen et al., 1998; Nurmit et al., 2003 in Heikkila and Lonka, 2006: 102)

Yet this motivation plays a critical role in students' academic performance as students with very high ability but low motivation is unlikely to perform well, whereas a student with low ability but high motivation is likely to perform well (Nonis and Hudson, 2006: 152).

Another threat kis students' tendency to use 'surface approach', where focus is on substance information and emphasizes rote learning and memorization techniques (Briggs, 1988; Tagg, 2003 in Laird, et al., 2008: 471). With surface approach, the goal of studying for a test or exam is to avoid failure, instead of grasping key concepts and understanding their relation to other information and how the information applies in their circumstances (Bowden and Marton 1998 in Laird, et al., 2008: 471). Surface approaches have nothing to do with wisdom but everything to do with aimless accumulation. They belong to the artificial world of learning, where faithfully reproducing fragments of torpid knowledge to please teachers and pass examination have replaced understanding (Laird, et al., 2008: 469). Such students would not adopt the problem-solving and thinking skills that are deeply needed to understand the material being read, for their intention has become to reproduce other people's ideas (Heikkila and Lonka, k2006: 100).

Other challenges related to poor information processing, reading, writing, motivation to study, math, and test taking skills (Rachal, Daigle and Rachal, 2007: 192). In general, students tend not to plan or activate their own knowledge, rarely use metacognitive monitoring processes, use ineffective strategies, and exhibit difficulties in handling task difficulties and demands (Azevedo, Cromley, and Seibert, 2004; Azevedo, Gthrite, and Seibert, 2004 in Azevedo and Cromley, 2004: 524). The students fail to engage in key mechanisms related to regulating their learning.

Evidence from research studies

In a study by Pintrich and De Groot (1990 in Heikkila and Lonka, 2006: 1) in Finland, it was found that self regulating students were to maintain their cognitive engagement in the task even if there were distractions. Students were able to set task related, reasonable goals, take responsibility for their learning, and maintain motivation. They were able to monitor their strategy use and. If necessary, modify their strategies if tas demands change (Butler and Winne, 1995; Zimmerman, 2000 in Heikkila and Lonka, 2006: 101).

In the USA, Gorski (2010: 10) reported that students who studied alone, read and wrote more, attended more selective schools and majored in traditional arts and science majors, posted greater learning. Azevedo and Cromley's study

(2004: 524) - still in the USA – emphasized that learners in the adaptive-scaffolding condition, in which students had a tutor to regulate their learning, learned significantly more than those in other conditions. The tutor in the adaptive instructional condition assisted students in establishing goals, monitoring emerging understanding, using effective strategies, and providing motivational scaffolding. Rachal, Daigle and Rachal (2007: 192) and Butler, (2002: 61) also found that self regulated learning improved students' academic performance and social skills. Schunk (1982, 89, 91) in a series of experiments, demonstrated that students' self-efficacy perceptions strengthened, and their academic performance improved. At the same time, Pintrich and De Groot (1990 in Puzziferro, 2008: 1) found that academic self-efficacy beliefs were positively related to intrinsic value and cognitive self-regulatory use. Finally, the positive relationship between deep approach and study success were evidenced by Marton and Saljo (1976b Watkins, 2001 in Heikkila and Lonka, 2006:101).

It is on the basis of these findings that the researcher intends to trial and test the envisaged model in Lesotho.

3. Statement of the problem

The students do not control their own learning processing. They do not even ask why they are studying. They do not see a big picture that self regulated learning involves social aspect that includes interactions with peers and teachers, and they are not even afforded opportunities to engage in self-regulatory learning.

3.1 Research question

How can self-directed learning among university students be enhanced? .

3.2 Research aim

To design a framework to enhance self-directed learning among college students in Lesotho.

3.3 Research objectives

In order to address this aim the following objectives will be considered

- To determine the need for self-regulatory learning model
- To identify the main components of self-regulatory model
- To determine conditions that are conducive for the self-regulatory model
- To determine threats that may hinder successful implementation of this model and
- To trial and test the envisaged model

4. Literature Review

4.1 Theoretical framework

The study will be based on three theoretical frameworks. The first is Bandura's theory of self-efficacy (1997). Albert Bandura's (1997) social learning theory emphasizes interactions among humans as the major source of information about ourselves and the physical world. His contention was that the environment, the person, the person's behaviour and beliefs all interact to produce subsequent behaviour. Later, Bandura (1997 in Owen, 2000: 132) found that one's ability to control behaviour was based on self-observation, judgement, and self-efficacy. This perceived self-efficacy, according to Bandura (et al., 2003: 769), plays a pivotal role because it affects actions directly and through its impact on cognitive, motivational, decisional, and affective determinants. Beliefs of personal efficacy influence what self-regulative standard people adopt, whether they think in an enabling or debilitating manner, how much effort they invest in selected endeavours, how they persevere in the face of difficulties, how resilient they are to adversity, how vulnerable they are to stress and depression, and what types of choices they make at important decisional points that set the course of life paths (Bandura, et al., 2003: 769).

With regards to Benjamin Bloom's taxonomy, his critical and creative thinking theory contains three overlapping domains; the cognitive, psychomotor, and affective. The cognitive domain comprises knowledge, comprehension, application, analysis, synthesis and evaluation. Critical thinking involves logical thinking and reasoning, including skills such comparison, classification, sequencing, cause and effect, patterning, analogies, deductive and inductive reasoning, forecasting, planning, hypothesizing, and critiquing. Creative

thinking involves creating something new or original. It involves sills of flexibility, originality, fluency, elaboration, brainstorming, modification, imagery, associative thinking, forced relationships. The aim of creative thinking is to stimulate curiosity and promote divergence (Boom, ...

Critical emancipatory framework: This approach allows the researcher and participants to interact on an equal basis as partners (Mahlomaholo, 2009: 13) in determining the needs of self-regulatory model. The researcher will use the three theories, the interpretive phase of critical emancipator theory being one of them, to interact, discuss and verify whether the components for self-regulatory identified by literature apply to the situations of the university in the study. During the analytic phase factors that impede self-regulatory learning will be unearthed critically with a view to change them for the better (McLean and Stahl, 2007: 6).

The three theories seek to sensitize students about having positive beliefs in one's abilities in order to think in an enabling manner. They promote resilience and self-awareness so that individuals may be wise in decision making. They conscientize the students to appreciate that the best way to learn is when they are in control of their learning.

4.2 Related literature

While the phenomenon of self-regulated learning may be global in its dynamics, recent international studies show that South Africa pupils compare most unfavourable with the other countries with regards to literacy and numeracy development (Heugh, 2001 in Pretorius and Nande, 2002: 439). The current levels of dropouts, the repeating of grades and failure rate in the National Senior School Certificate examination taken in grade 12 at the approximately 18 years of age, all indicate considerable underachievement among black scholars in the country (Vilijoen, 1999 in Pretorius and Nande, 2002: 439). This underachievement of students, even more disturbingly, was prevalent among college and university students (Fourie and Heinrich ALT, 2000: 117). At the University of Free State, for instance, lecturer's workload increased dramatically in 1996, and they had to present the same subject content at least twice – once for the English group and once for the Afrikaans group. No additional remuneration was provided. The staff now had to

conduct their lectures in English which for the large majority was a second language, used very little for professional purposes.

Staff members were increasingly confronted with students coming from cultural, social educational backgrounds differing substantially from their own. Many new students were the first-generation university students, who often came from deprived socio-economic circumstances, and they found it difficult to cope with the demands of university life. Academic staff had to play the role of counsellors, both personal and academic, and much more time was spent on students support (Fourie and Heinrich ALT, 2000).

This is the gap that could have been filled by self-regulatory learning. The same may not be said of NUL in Lesotho, as it had its own challenges. What was common, however, was underperformance of students (Half of NUL students fail, 2011: 10), and the fact that self-regulatory learning did not seem to be at the centre of teaching and learning in the two institutions.

Underperformance of students was not exclusive to South Africa and Lesotho. In Israel, educationists and researchers learned that low academic performance could be improved by problem-based approach. Self-regulated learning, in this Hebrew nation, was based on the IMPROVE metacognitive self-questioning method that directed students' attention to understanding when, why, and how to solve problems (Kramarski and Mevarech, Am Education J 40: 281-310, in Kramarski and Revach: 379). 64 Israeli elementary teachers participated in a month-long professional program to enhance mathematical and pedagogical knowledge. The results indicated that teachers in the self-regulatory learning program outperformed those in the non-self-regulatory learning program on various problem solving skills and lesson planning. Israeli teachers encourage student-centered learning, in which knowledge typically develops out of students' needs and interests (Perry, Phillips, and Hutchinson, 2006; Randi and Corno, 2000 in Kramarski and Revach, 2009: 379).

In Finland and Sweden, educational psychologists did a study that explored relations between motivation and cognition (Jarvela, 2001 in Heikkila and Lonka, 2006: 99). It was in the same study that, having considered and worked through three research questions: student approach to learning, self-regulated learning, and cognitive strategies, the positive relationship between a deep

approach and study success was very well demonstrated (Heikkila nad Lonka, 2006: 100).

At the same time, a new study in the USA proved that unless a student centred approach was adopted, learners would be disadvantaged and the value of higher education would be compromised. According to Gorski (2011:10), the research of more than 2 300 undergraduates found 45 percent of students show no significant improvement in the key measures of critical thinking, complex reasoning and writing by the end of their sophomore years. The study was an unusually large-scale effort to track student learning over time. The findings were that the USA might be boosting graduation rates at the expense of effective teaching and learning (Gorski, 2011: 10).

On the other hand, Rachal, Daigle and Rachal (2007) discovered kin their study that students attending universities that emphasized good educational practices such as self-regulatory strategies demonstrated improved learning and personal development. The study found that good educational practices encouraged students to put forth more effort to become academically engaged, which included writing more papers, reading more books, meeting more frequently with faculty and peers. These practices enhanced critical thinking, problem solving, effective communication, and responsible citizenship (Kuh, 2001 in Rachal, Daigle and Rachal, 2007: 191).

Engagement behaviours were largely motivated by self-efficacy, or students' personal belief system that included her/his thoughts and attitudes about what it meant to be an expert student. They ask questions in class, take notes, develop study schedules, maintain concentration, and call on social skills necessary to perform higher-level mental operations. They are goal directed, intentionally activated and purposeful, and interact with other students (Rachal, Daigle and Rachal, 2007: 191-192).

In the UK, Butler's (2002: 59) study showed that self-regulated learning, besides from emerging from just an individual knowledge and skills, also involves social aspect that included interaction with peers and teachers' (Patrick and Middleton, 2001) who shape students' task engagement by 'co-regulating' learning (Meyer and Turner, 2001 in Butler, 2002: 60). The study investigated the interplay between motivation, affect, cognitive strategies,

metacognition and socials contexts as they shape students approach to learning (Butler, 2002: 60).

One condition which is repeatedly found to be at the core of student learning was independence. Paris and Paris (2001), for example, 'link self-regulation to 'autonomy and control by the individual who monitors, directs, and regulates action towards goals of information acquisition, expanding expertise, and self-improvement' (Paris and Paris, 2001: 89 in Butler, 2002: 60).

In short, students self-regulation can be enhanced, or inhibited, by the circumstances in which they find themselves. At a simple level, whether or not students self-regulate depends on whether or not

5. Research Design and Research Methodology

The study will be located at Lesotho College of Education in Lesotho. The study is meant to determine the effect of self-regulated learning at this institution and whether it can have a positive influence on the pass rate. Lesotho College of Education was chosen because the researcher is a lecturer in this institution.

The researcher will make use of his class of a hundred plus students. Action research methodology will be employed in order to initiate self-reflective responses from students about their learning experiences within their own classroom environments. The location of the study will be in the 'social situation' of the classroom. Students will be required to reflect on their practices while engaging in specific self-regulated learning strategies and tools, at particular times in the learning cycle, in their classroom programmes.

A qualitative approach will be used to gather data. This approach allows the researcher to interact closely with the researched in a humanely manner in order to observe and interpret their world (Merriam 1998: 8; Dexter 1970: 136 and Patton 1990: 278). A free attitude interview technique by Ineke Meulenberg-Buskens will be used. This technique allows data gathering process to be humane and does not alienate and undermine the research participants (Mahlomaholo and Netshandama 2010: 11). Data in the form of documents, and participants own words will be gathered and analysed. Audio instruments will be used to capture certain data that cannot be captured during normal interviews. A critical discourse analysis will be used to analyse

the data. This approach allows for the use of spoken words by the participants as evidence.

6. Value of research

Once completed this research study will provide answers about self-regulated learning at college. The lessons could be adapted and applied in other colleges and universities and higher institutions of learning to address similar problems.

7. Ethical consideration

The researcher will seek permission from the Ministry of Education to conduct the research study at the Lesotho College of Education. The participants will be assured that their identity will not be disclosed and that no one will be coerced to take part in the study.

8. Layout of chapters

Chapter 1: Orientation – To give background and purpose of the study

Chapter 2: Theoretical framework – Text information relevant to the study

Chapter 3: Methodology – To explain the methodology and design for data gathering

Chapter 4: Analysis of data – Interpretation of empirical data to verify literature study

Chapter 5: Findings and Recommendations – State the findings and suggest possible interventions for future.