

MOTIVATION OF HIGHER EDUCATION STUDENTS: A SINGLE STUDENT ENGAGEMENT CASE STUDY

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Abstract

In order for higher education students to perform well academically, they need to be engaged and intrinsically or self-motivated. They require motivational programmes with tools and techniques to guide them to take responsibility for their learning, perform well at assessments and graduate successfully. Research was conducted on a group of higher education students to investigate whether the implementation of a specific motivational intervention programme called 'Concepts for Academic Performance' results in improved performance, responsible attitudes and increased throughput rate. The aims of the research were to engage and motivate students while instilling a positive attitude towards learning, and to measure if the motivational programme increases student throughput rate through improved performance. Both quantitative and qualitative data were gathered, analysed and compared at pre-test and post-test phases. The findings reveal that students achieved higher academic scores in their post-test versus their pre-test and that they developed positive attitudes to learning and assessment after experiencing the motivational programme.

Introduction

If higher education students are to graduate and successfully meet the ever growing demands of a rapidly advancing economy they must achieve academic success in all their registered modules within specified time spans. For students to perform well they should be self-motivated or intrinsically stimulated to take responsibility for their learning and academic achievement. Universities or institutions of higher education provide rich, fertile environments to investigate if motivational programmes instill intrinsic motivation to improve student engagement and successful performance. This paper presents the research that was conducted in a multicultural, multilingual, cosmopolitan higher education institution.

A sample population of 130 second year students ranging between the ages of 18-24 was chosen for this motivational investigation. According to Erikson & Erikson (1997), young adults in this age group are at the stage where they face the choice of intimacy versus isolation. Intimacy is a caring for oneself, loved ones, others, as well as life's roles and responsibilities. It is achieved only if students commit to concrete affiliations 'which may call for significant sacrifices and compromises'. Unfortunately, isolation is realised when the 'fear of remaining separate and unrecognized' sets in.

Based on the Erikson & Erikson prediction, this study was undertaken because although the majority of the students attended classes and tutorials, their assessment results revealed average to poor performance. Students seemed unenthusiastic, apathetic and unmotivated. The questions of 'why?' and 'what will change the situation?' arose during the course of delivery of lectures. The answers to these questions resulted in this experiential investigation undertaken to engage, enrich and motivate students to accept responsibility for their learning and simultaneously improve academic performance.

At the background of this study lie the many debates surrounding the concept of 'student engagement'. Debates revolve around whether students are engaged or not, whether there is an interaction between learning and

engagement, or whether the current definitions of student engagement are not too abstract (Axelson & Flick, 2011). This research study is concerned with finding effective, practical ways to engage students, evaluate the engagement at a particular level of higher education and measure whether providing enriching, motivational student engagement experiences results in improved academic performance. The research problem statement of this study is that the selection, and provision, of an effective enrichment and motivational programme may not improve student engagement and academic performance.

The objectives of the research are: firstly, to engage and motivate students while instilling a positive attitude towards learning, and secondly, to evaluate if the specific motivational programme employed is effective in increasing student throughput or graduation rate through improved performance. The value-add of this research is the insight gained when tapping into the authentic, real-life, lived experiences of students in order to create an intimate, motivational and enriching learning experience.

Literature review

The literature review focused on student engagement and motivational enrichment programmes that sought to empower students to take responsibility for the way that they learn and for successful academic performance over the last three decades.

In the 1980s, Bremmer informed educators that ‘success is in the student, not in the university; greatness is in the individual, not in the library’ (Bremer, 1980: 23). Higher education, if it is to succeed in its mission, must invest in the success of the student experience more than in its other resources. In 1984 educators were informed that student behaviour or the way that students act, think and feel, are determined by the pictures they create in their minds. When students create better pictures, they make better choices and have better control of their lives (Glasser, 1984). By 1986 educators realised that they cannot forcefully pressure students to accept responsibility for their learning and assessment, especially if she or he does not feel satisfied during the learning experience (Glasser, 1986). Educators, therefore, must continually

seek ways and means to ensure satisfied students with effective learning experiences. By 1988, successful teaching, learning and assessing belonged to those educators who created fun-filled, fulfilling and empowering learning environments and who 'make it work for the learners' (Jensen, 1988).

In the 1990s, the action learning model (Phillips & Ford, 1996) seemed to offer some student satisfaction by presenting high-level thinking and learning with a process model for achieving their learning outcomes. Educators could finally create fun learning experiences that aim for every student to create positive, successful mental pictures of their individual daily learning experiences. At the onset of the new millennium, the call was for realising higher levels of student engagement and success via three essential learning outcomes to be achieved in higher education classrooms: intellectual skills, practical skills, and individual and social responsibility (Laird, Chen & Kuh, 2008). Simultaneously, undergraduate student engagement activities, especially inquiry-orientated activities, were found to result in positive gains for developing general education, personal aspirations, science and technology, vocational preparation and intellectual skills (Shouping, Kuh & Shaoqing, 2008).

By 2010, research investigations were focused on what types of high level student engagement activities are most likely to promote student achievement to achieve twenty-first century learning outcomes (Pike, Kuh & McCormick, 2010). Educational leaders were made aware of the dangers of 'one size fits all' student engagement programmes and were requested to consider the effects of factors, such as age, generational status, gender, social learning spaces, technology and subject-specific peer mentors (Gibson & Slate, 2010; Tison, Bateman & Culver, 2011; Matthews, Andrews & Adams, 2011; Brett, 2011; Power, Miles, Peruzzi & Voerman, 2011).

At an academic level, the emphasis was still on best practice learning programmes that explore Bloom's three learning domains, i.e. cognitive (mental), psychomotor (physical), and affective (emotions) domains. The call was also for lecturers to employ Anderson and Krathwohl's learning model to impart four types of knowledge, i.e. factual, conceptual, procedural and

metacognitive knowledge. For each knowledge area, students should be assessed in the six cognitive processes as follows: remember, understand, apply, analyse, evaluate and create. In addition, lecturers, trainers and educators need to be more 'reflective practitioners who continually strive to understand and improve how students learn' (Killen, 2010).

According to the 2002 annual National Survey of Student Engagement (NSSE) conducted in the US, students learn more when they are intensely involved in their education and when they are asked to think about and apply what they learn in different settings (Mark & Boruff-Jones, 2003). The NSSE survey questions were designed to measure whether educational practices are effective in these five areas: academic challenge; active and collaboratively learning; student interactions with faculty; enriching educational experiences; and supportive campus environment.

Of these five effective educational practice areas, it is interesting to note that students in South Africa scored 'enriching educational experiences' as the lowest with an overall score of 22% as reported in the South African Survey of Student Engagement (SASSE) report of 2010 (Strydom & Mentz, 2010). The SASSE also states that higher education institutions can influence improved throughput rates and be the drivers of student success if they positively improve the student experience through quality teaching, learning and social cohesion.

As can be seen from the above although the literature presents a strong call for student engagement, enrichment and motivation, the question of whether a motivating, enriching student experience at higher education level will motivate students to change their attitude and improve their academic performance still remains unanswered.

Research design and methodology

The objectives of this research are two-fold: firstly, to select and implement an effective student engagement enrichment programme in order to improve student attitude towards learning; and secondly, to measure if the student engagement programme increases student throughput or graduation rate through improved performance. The research questions are as follows: what type of motivational programme will effectively engage students towards embracing positive attitudes and accepting responsibility for their learning?; and will delivery of the motivational programme result in improved academic performance?

The research design selected for this investigation is a mixed-methods research case study using both quantitative and qualitative measurement instruments for data collection and analysis. The rationale for choosing mixed-method for this research study include triangulation (need to converge and corroborate the results), development (use of findings of both quantitative and qualitative methods to inform the research conclusions), and expansion (expanding the breadth and range of this research study by using different methods for different inquiry components) (De Vos, Strydom, Fouche & Delport, 2011).

The case study approach was selected to examine the effectiveness of a specifically selected motivational programme that incorporates two types of enrichment interventions: a general lecture-based, nurturing presentation style; and a specific once-off four hour presentation by an external facilitator. The approach is tightly structured so that detailed knowledge can be gained of the selected interventions or treatments and its impact on student achievement can be measured accurately (Hofstee, 2006).

Research participants

The research population consisted of 130 second year diploma male and female students between the ages of 18 and 24. Ethical approval of the investigation was obtained from the student participants, staff and management

before the motivational programme was delivered. The total population of 130 was invited to attend and participate in this student engagement programme. Of the 130 in the population, 52 students participated in the research student engagement programme. The total sample population that participated was thus 47.6% of the research population.

Measuring instrument

The measuring instruments used in this study are the two semester tests and the researcher participant observation narratives. At a quantitative level, the test scores measured improved academic performance from the first (pre-test) to the second test (post-test). At a qualitative level, participant observation measured student attitudes before the motivational programme and the changed attitudes towards positive responsibility for learning after the interventions.

Research procedure

Ethical approval was obtained from all the stakeholders for the research design, measuring instruments and the use of the selected motivational programme before the motivational programme was implemented. Pre-test scores of a semester 1 test were recorded for all 130 students. In a parallel process, the attitude, behaviour and general feelings of participants who attended lectures were recorded in terms of their approach to their learning and their acceptance of responsibility for their learning prior to the intervention being administered. The motivational programme consisting of general motivational activities during lectures and a once-off four hour presentation session called 'Concepts for Academic Performance' (CAP), was then implemented. Thereafter, the post-test scores were recorded for a semester 2 test and compared with the pre-test scores. Simultaneously, the attitude and behaviour of those students who attended lecturers and the CAP session were recorded and compared to previous recordings in terms of improved attitude and responsibility for learning.

Data analysis

This research is a case study linked to the basic single-system design. Both on the quantitative and qualitative levels the data gathered were analysed using the pre-and-post-test method. The design is a one-group pre-test-post-test design as follows: O1 X O2. A single pre-test rating (O1) was recorded for the group of students. Students were exposed to the motivational programme consisting of the general and specific interventions (X=treatment). A single post-test rating (O2) for the same group of students was recorded after the treatment (Shadish, Cook & Campbell, 2002).

Using the quantitative method, this study statistically measured a semester 1 test results (pre-test) with a semester 2 test results (post-test) after the delivery of the catalyst general and specific motivational interventions. Using the qualitative method, the students were observed and their attitude change was compared from one of unenthusiastic, apathetic and unmotivated approach to learning (pre-test) to attitudes of interest, commitment and responsibility for learning and assessments (post-test) after attending the motivational programme treatment.

Selecting the student enrichment programme

A two-pronged enrichment intervention was selected as the 'treatment' for this motivational programme case study: general intervention and specific intervention. The general intervention was delivered at every lecture to students who attended classes. The specific intervention was delivered at a once-off four hour session. This enrichment programme was selected based on the premise that providing enriching educational experiences as a complementary learning opportunity will augment their academic programme (Strydom & Mentz, 2010). Student engagement is recognised as those educationally purposeful activities and participation that lead to student growth and development. The two key components of student engagement are the amount of time and effort students put into their academic studies and other educational activities, and the types of learning opportunities the institution provides that

lead to student success (LaNasa, Olson & Alleman, 2007). The decision to select the general and specific enrichment interventions was based on these student engagement criteria: deep approaches to learning, active classroom practice, awareness of personal intelligence, improvement of practical or psychomotor skills, and understanding of one's self through individual and social responsibility (Laird et al., 2008; Shouping et al., 2008).

All students who attended class during weekly lectures and tutorials were exposed to the general enrichment intervention of this motivational programme. The lecturer delivered the general intervention via affirmations, mind maps and a caring value chain. Table 1 below describes these general motivational activities.

Table 1:

General motivational activities for higher education student engagement

Activity	Frequency	Description
Affirmations	Weekly	Statements of intent called 'affirmations' were presented to students that over time are felt and experienced by the students. For example, at the end
Mind Maps	Semester	Students draw and submit colourful, graphic mind maps that capture the key words of their Learning Guide and selected chapters of their prescribed
Caring Values	Daily	Lecturer promotes and encourages a caring, inquiring and problem solving attitude via positive statements, instructions, conversation and approach. The principles of respect, trust, potential, multiple

Specific enrichment intervention

The specific enrichment intervention was delivered by an external facilitator and proprietor of the motivational programme called 'Concepts for Academic

Performance' (CAP). CAP was designed to boost significantly student thinking, feeling and reflection by increasing awareness of accelerated learning techniques and instilling feelings of high esteem within themselves. This cognitive, psychomotor and affective enrichment intervention asks and answers the question: Why do some people succeed while others fail? The answer lies in awakening a consciousness to student internal, innate, intrinsic locus of control called 'self-motivation'. The topics included in the intervention are as follows: the four stages of consciousness; know yourself; the human brain; imagination; problem solving and creative thinking; speed reading; mind maps; mind management; memory skills; responsibility; goal setting; stress; successful achievement; and accelerated learning.

Table 2 below describes a sample of the concepts of the specific enrichment intervention to which the students were exposed.

Table 2:

Sample of CAP intervention

Concept	Description
Consciousness	The four stages of consciousness include the unconscious, sub-conscious, semi-conscious and conscious phases. Students were made aware of these states of consciousness: unconsciously conscious (do not know we do not know), consciously unconscious (know we do not know), consciously conscious (know we know), and consciousness (automatic).
Know yourself	Awareness of experiences and personal realisation of perception as truth, fantasy and belief. Students were made aware of their internal and external focus of attention and locus of control. Self-esteem, love, peace and happiness were explained and emphasised as needs, desires and satisfaction states.
The human brain	The student brain was explained as a micro replica of the

	macro universe. It is the instrument through which the human spirit manifests as human behaviour. Students experienced the brain as a data bank of thoughts, feelings, creativeness and potential. Students were taught to stimulate their left-right hemisphere interconnection and the brain's front and back capability.
Imagination	Students experienced how and why imagination is more important than knowledge by experimenting with their mind perception, belief and resulting achievement.
Problem solving and creative thinking	Students were taught to think creatively about their problems and prepare their minds to review, browse, ask questions, plan and create solutions.
Speed reading	Students were taught the technique for speed reading and coping with information overload and time constraints.
Mind maps	Mind maps are a creative technique for easy information storage and retrieval. Students had to write key words/concepts of topic with 'hooks' on each word that stimulated whole brain synergy.
Mind management	Students experienced how to relax their minds and visualise mind-body, will power and intelligence sensations and memories.
Memory skills	Students were taught to store information, remember it and recall knowledge. The technique of memory hooks or pegs and association of words and phrases to activate long term memory was practised.
Brain-based learning	Students were encouraged to maximise their unlimited potential to learn and achieve. They identified their learning style/s, intelligence, potential and ability. They were taught to use movement, fun, games, music and colour to stimulate brain synergy and develop a super memory.

Research findings

The objectives of this research were to select and implement a student enrichment programme that engaged and motivated students to accept responsibility for their learning, and to measure if the programme resulted in improved student performance. The interpretation of results after the implementation of the motivational programme, especially the CAP specific intervention, reveals that the research purpose was achieved. The research findings are detailed below as quantitative and qualitative findings.

Quantitative pre-test and post-test findings

At a quantitative level, the findings reveal a significant increase in academic performance for the students who embraced the general and specific enrichment interventions. Individual results increased for 57% (30 of the 52) of the students who participated in both interventions. The increase in academic performance scores for 57% of the research participants in the post-test range from 4% to 35%.

Three students (10%) scored a performance increase of between 31% and 35% in the post-test versus the pre-test results. Four research participants (13%) achieved between 26% and 30% increase. Three participants (10%) achieved an increase of between 21% and 25% and a further three students' (10%) performance increased by between 16% and 20%. Ten participants (33%) scored a performance increase of between 11% and 15%. Six participants (20%) scored a performance increase of between 6% and 10%. One student scored an increase of between 1% and 5%.

Table 3 below presents a comparison of semester 1 results (pre-test) with semester 2 results (post-test) for a sample of students who participated in this motivational programme.

Table 3:

Sample pre-test and post-test results of students who participated in the motivational programme

Student (BOL11B1)	Pre-Test (Semester 1 results/100)	Post-Test (Semester 2 results/100)	% Increase
1 (11)*	68	75	7
2 (13)	56	62	6
3 (14)	68	82	14
4 (21)	52	75	23
5 (24)	42	72	30
6 (34)	52	80	28
7 (38)	46	81	35
8 (46)	64	71	7
9 (60)	46	79	33
10 (68)	66	79	13

Student (BOL11B1)	Pre-Test (Semester 1 results/100)	Post-Test (Semester 2 results/100)	% Increase
11 (73)	64	68	4
12 (81)	54	68	14
13 (89)	56	72	16
14 (94)	56	76	20
15 (108)	63	88	25
16 (109)	38	65	27
17 (112)	76	85	9
18 (116)	76	85	9
19 (118)	60	71	11
20 (119)	58	69	11
21 (120)	52	64	12
22 (126)	34	60	26
23 (139)	66	78	12
24 (142)	78	87	9
25 (145)	62	83	21
26 (148)	50	62	12
27 (149)	68	82	14
28 (152)	56	71	15
29 (155)	27	61	34
30 (170)	50	68	18

*Data in parenthesis in column 1 refers to student identity.

Qualitative pre-test and post-test findings

Participant observation was the qualitative data collection method. At the pre-test phase, prior to implementation of the motivational programme, students were observed to be apathetic, despondent, disinterested, under-performers and they were not committed to class attendance or successful academic performance. During mid-semester, after the implementation of the motivational programme, individual students began to display added interest in class attendance and successful completion of learning activities. Furthermore, critical reflection thinking and a personal commitment to studies were beginning

to emerge.

Groups of students began to display improved relationships, respectful communication and established a supportive climate for learning from and with each other. Affirmations were chorused with conviction at the end of each class. Mind maps were used regularly and viewed as fun learning activities. Students also embraced the caring value chain for themselves and their peers. A positive, responsible attitude and behaviour towards their learning was observed at the post-test phase. Furthermore, the participating students began to articulate a desire for successful academic achievement.

Research validity

This research was conducted in a fair and reliable manner. All students in the research population were invited to engage with, and participate in, the general and specific enrichment interventions. Since these were self-selecting students, this could have influenced the number of students who participated in the research.

All stakeholders were consulted and ethical approval was secured on the use of the selected motivational programme and the pre-test and post-test measuring instruments. The validity of the research method, the selected motivational programme, the measuring instruments, the findings and the inferences made from the pre-test and post-test analysis were ensured in that this research measured what it said it would measure. However, further research of this nature should improve internal validity by comparing the research results to that of a control group.

Conclusion

Six conclusions were arrived at in this research case study. The selected motivational programme was effective for student engagement and for providing an enriching learning experience for the research population. The motivational programme improved student attitude, created a positive learning environment and increased student responsibility for learning and achievement. Student academic performance and throughput rates improved significantly at

the post-test phase compared to the pre-test scores. Students seemed more satisfied, were more attentive and responsive, and reflected on their learning after participating in the general and specific motivational programme. Students were less reluctant to abdicate responsibility for learning and more willing to negotiate positively the process of how to achieve the module learning outcomes. Students used affirmations and mind maps consciously, and showed appreciation for the caring, andragogic (adult learning) methodology.

Two suggestions arise from this motivational investigation of student engagement. Firstly, higher education students, specifically first-year students, should be exposed to continuous motivational, enrichment activities so that they understand, accept and exhibit a responsible learning attitude at the beginning of their campus life. Secondly, educators, especially tertiary lecturers, should continuously find ways to motivate, enrich and engage students to enhance their academic learning experience within the classroom. The recommendation for further research is that this research case study should be repeated using both an experimental and a control group.

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