Technology-Based Support of Final Year Bachelor of Education Students in a South African Open Distance e-Learning Institution

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Abstract

Throughput rates are a cause for concern across South African universities. Acceptance at university does not guarantee success for students, particularly the historically and economically disadvantaged majority. This challenge is exacerbated in Open Distance e-Learning institutions such as the University of South Africa. Through a case study, this paper discusses critical issues affecting students on the brink of completion, requiring one or two modules to complete their Bachelor of Education qualification at the University of South Africa. The two hundred students who were part of the study were enrolled in the second-level English module, Genres in Literature and Language: Theory, Style and Poetics. The sampling was voluntary and purposeful from students who were enrolled in this module, who either sought assistance with the module content via email or who qualified for the Final Year Concession, which is an additional assessment opportunity for final-year students. The study explores the following questions: 1. What are the most significant barriers to successful study in the Genres in Literature and Language: Theory, Style and Poetics module as identified by applying Keller's (1987) Attention, Relevance, Confidence and Satisfaction Model of Motivation? 2. How can these barriers be addressed through the Lecturer-in-the-Pocket approach toward improving student engagement and success in the course? The success of this cohort provides another approach to improving throughput rates in Open Distance e-Learning institutions.

Keywords: *motivation, lecturer-in-the-pocket, open distance e-learning, throughput rates, mobile technology*

Introduction

This paper outlined a case study of the intervention piloted at the University of South Africa (UNISA), a Comprehensive Open Distance e-Learning (CODeL) institution. The English Studies Department conducted this study to support a group of final-year Bachelor of Education (BEd) students. These students needed to pass one or two modules to complete their BEd qualifications.

Student emails, such as the directly quoted email request for assistance below, indicated that students tend to experience challenges in mastering the outcomes of some modules offered in the English Studies Department, particularly in the first and second-level modules.

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Student 1	Madam "My name is […] Iam a students of unisa. I have 39 module since2016 I have a problem I failed Eng2602 modern 5 time. I ask any [advice] that will help me. I am not work ,I failed even to pay my study fees for last [semester],please madam help me.I feel as failed now because I loose many opportunity through this Eng. I will be glade if my request is successful Your faithful […]"

Such emails do not only indicate that students are experiencing challenges but from the tone, one can also detect the student's despondence.

The students seem to find the Foundations in English Literary Studies (ENG1501), a first-level module, and the Genres in Literature and Language: Theory, Style and Poetics (ENG2602), a second-level module, as the most challenging. The passing rate in these modules over six years, from 2014 to 2019, has been below the expected college average of 75%. At some point, the pass rate for both modules dropped to 34% and 28%, respectively.

Several students have constantly repeated the ENG2602 module, which is the basis of this case study. For those students who have also failed the final year additional assessment (FI Concession), this means that they cannot complete their qualifications. This can result in congestion in colleges, such as the College of Education, that have qualifications with prerequisites in certain modules offered by the English Studies Department. However, this situation can be addressed by providing a bridge that connects academics, students and existing support materials, enabling more productive tutoring.

This paper expands on the Finally-I-Can Intervention Project (FICan), as wordplay on the existing FI Concession – an institutional intervention for improving throughput. The FI Concession has some limitations that exclude certain students. According to the UNISA Assessment Procedures Manual (2013, pp. 62-63), not all modules qualify for an FI Concession; this includes modules for the Post Graduate Certificate in Education and modules offered for non-degree purposes. Moreover, the FI Concession cannot be taken more than once. If students fail it, they must re-register the module and study through the semester or year to write another standard examination. Thus, the students with bursary funding, or those funded through the National Student Financial Aid Scheme, are left without funding requiring them to pay the incurred fees. This case is not always possible since some students are from low socio-economic backgrounds. Consequently, these students who have already passed 39 modules could drop out because of a lack of funding, even though they are only left with one module to complete their qualifications.

Thus, this study employed the ARCS Model of Motivation to explore factors contributing to gaps in student motivation in the ENG2602 module. It further examined how these factors can be addressed using the Lecturer-in-the-Pocket (LiP) approach, leading to an improved success rate in the ENG2602 module that could contribute to the university's throughput.

Objectives

This paper sought to determine gaps in student motivation that have led to repeated failure in the ENG2602 module, guided by the ARCS Model of Motivation. Moreover, it sought to demonstrate how the researchers applied the LiP approach to address some of these gaps and enhance tutoring support to help a group of ENG2602 students to complete their BEd qualification. To this end, it proposed to answer the following questions:

1. What are the most significant barriers to successful study in the ENG2602 module as identified by applying Keller's ARCS Model of Motivation?
2. How can these barriers be addressed through the LiP approach to improve student engagement and success in the course?

Review of Related Literature

In 2008, Motlik argued that it would be an injustice for Asia and Africa to emulate the West in pursuing internet-based learning because the Asian countries being the "most wired" (p. 5) were still unable to develop efficient e-learning methods. While this may have been true in 2008, universities across South Africa introduced online learning to complement contact classes over a decade later (Bosch, 2009; Czerniewicz & Brown, 2009; Ravjee, 2007). This is advantageous for students in contact universities as it means their learning continues beyond the lecture hall and the library. ODeL students who study without contact sessions have, however, not been similarly favored.

ODeL entails that students do not have ready access to lecturers (Howland & Moore, 2002; Spooner et al., 1999). According to Prinsloo et. al (2012) "[s]tudents and especially distance education students in ODL settings do not leave their other identities 'outside' of their learning, but rather find them in ever increasing networks of identity constructs" (p. 131). This means that students can also be parents, workers, spouses or life partners. Prinsloo et al.'s (2012) description of students in an Open Distance Learning (ODL) institution alludes to the multiple roles that students must fluidly and simultaneously occupy. This implies that they have limited time to access libraries and computer centers during working hours, since they may also be at work, during the day. Such students are left to fend for themselves, while the existing digital platforms that were created to mitigate the distance remain unused. This proves Motlik (2008) correct to a certain degree for it has resulted in the privileged students, who can afford meaningful internet connectivity, being further privileged while the underprivileged students suffer even more.

Existing scholarship reveals concern over the low throughput rates in higher

education institutions (Aluko, 2015; Letseka & Karel, 2015; Sondlo, 2013). According to Letseka and Karel (2015), "UNISA alone accommodates an estimated 40% of South Africa's entire university student headcount enrolments" (p. 65). The implication is that if throughput rates are low at UNISA, the country will have lower throughput rates. This is contrary to the National Plan for Higher Education (NPHE, 2001) which seeks to improve graduate outputs. The previously mentioned problem in English Studies also contributes to this low throughput rate, especially for BEd students. This has necessitated intervention to try and rectify the situation.

Various scholars have advanced possible solutions to the challenge of low throughput rates in South Africa. Some propose improved student support (Dunpath & Dunpath, 2015; Pitsoe & Baloyi, 2015; Shandu-Phetla, 2017; Sondlo, 2013). According to Dunpath and Dunpath (2015), "virtually all institutions invest heavily in mediating the effects of the articulation gap between secondary and higher education, particularly deficits in academic skills and literacies which accelerate dropout" (p. 108). They focus on student support intended for newly enrolled students. Pitsoe and Baloyi (2015) perceive epistemological access, poor bandwidth and under-preparedness (of both students and the institution) as challenges that impede student success and retention. Although they advance, among other solutions, that the use of the myUnisa platform as a Learner Management System (LMS) and tool for tutoring through discussion forums, partially addresses the challenge, they still raise a concern that students in rural areas are not accommodated (Pitsoe & Baloyi, 2015). The exclusion of students in rural areas has implications for student motivation as access to learning platforms is limited. Other scholars' proposals relate to a range of support that can be offered through multi-purpose centers (Sondlo, 2013) and mobile learning applications, designed to assist first-year students with English proficiency, through vocabulary development (Shandu-Phetla, 2017). The limitation of their proposals and arguments, where this study is concerned, is that they focus on students who are at the beginning stages of their degrees such as first-year and second-year students who have failed some first-level modules. This leaves the matter of students who are on the brink of completing their qualifications inadequately addressed. On-the-brink refers to students with one or two outstanding modules, before qualification completion. This study, therefore, sought to address this gap.

The study advances that by providing a bridge that will connect academics, students, and existing support materials, in a manner that will enable more productive tutoring, academics could turn this situation around. This is based on the belief that tutoring in ODeL should closely model the face-to-face context as far as possible, hence, applying the Lecturer-in-the-Pocket (LiP) approach in the intervention. Hamman (2019) coined the phrase "face-to-face at a distance" (p. 5) when referring to the pedagogical model that relies on live streaming. This alludes to open-distance distance tutoring modelling the face-to-face context by bringing the lecturer close to the student virtually. The LiP approach, similarly, seeks to emulate the face-to-face context by placing the lecturer in the student's pocket through brief, downloadable and shareable resources, as well as through harnessing existing technology of the institution's LMS, mobile phones and the internet to enhance the students' learning experiences. According to

Mayisela (2013) "mobile technology has a potential to support blended learning beyond classrooms and computer centres" (p. 17). This implies that students in a CODeL environment could benefit from mobile learning as it would minimize the need for students to travel to the nearest campuses. This justifies the LiP approach.

Letseka and Karel (2015) also address student support. However, they extended their argument to include the need for UNISA "to review its admission policies so that only those prospective students who qualify for admission and have the potential to succeed are admitted" (p. 4). While this has merit, it neither addresses the question of what to do with students who are already in the pipeline nor does it address the concern of the remaining module for students who have passed all thirty-nine modules, with distinction in some cases. This paper, therefore, seeks to provide another alternative to addressing the challenge of low throughput rates, particularly by addressing what to do regarding the last outstanding module.

Theoretical Framework

The study adopted Keller's (1987) ARCS Model of Motivation, which is clustered under four components, Attention, Relevance, Confidence, and Satisfaction (ARCS). According to Keller (1987, p. 3), attention is the foundation of learning, which needs to be sustained. He further discourages learning as an end. Rather, he stated that it should meet certain needs or goals of the students for it to be relevant. The major need and goal of students in this study was the completion of their qualifications, which implied that the intervention would be relevant in this capacity.

For Keller (1987), the process is as important as the end, and therefore, the relevance component addresses this process through the "perceived utility" (p. 3) of what is being taught. Students need to understand why they are learning something and how it will benefit them beyond the classroom. The fact that these ENG2602 students in the study had repeated the module several times brought to question whether they understood its relevance. Keller (1987) argues that "[r]elevance can come from the way something is taught, it does not have to come from the content itself" (p. 3). The researchers, therefore, needed to determine whether there was a weakness in their instructional processes or in the students' approach to learning the module content.

Keller (1987) also posits that a student's confidence levels can influence "persistence and accomplishment" (p. 5), which implies that with low confidence levels, student success may be impaired. Most students in the study had failed the ENG2602 module multiple times, therefore, the confidence levels, which according to Keller (1987) are fundamental to students achieving their goals, were presumably low.

Satisfaction is the last of the components in the ARCS model. It focuses on "practices that help make people feel good about their achievements" (Keller, 1987, p. 6). As already mentioned, repeated lack of success in ENG2602 and the inability to complete the BEd degree was demotivating for the students in

the study.

Other scholars have explored Keller's ARCS Model of Motivation on learners' and students' motivation, in various fields of teaching, with encouraging possibilities. For instance, Milman and Wessmiller (2016) believe that although the model is over two decades old, it is still "applicable to today's learners, particularly those who are learning online" (p. 67). This study shares a similar sentiment, hence, applying the ARCS Model of Motivation in ODeL, more than three decades since its inception. Milman and Wessmiller (2016) suggest practical ways in which this model can be used in online learning. They concluded that incorporating elements of the ARCS Model of Motivation in online education could increase learners' motivation even when "content is taught asynchronously" and learners are "geographically separated" (Milman & Wessmiller, 2016, p. 70). This is an inspiring conclusion as the asynchronous nature of content and geographical separation in ODeL can exacerbate the challenges of distance learning.

Along the lines of this study, Malik (2014) investigates the effectiveness of the ARCS Model of Motivation in overcoming the non-completion rate in distance education students. She employs various methods underpinned by the ARCS Model of Motivation to sustain students' motivation in distance education. She concludes that "motivational strategies improve the disposition of the learners to finish the course successfully" (Malik, 2014, p. 198). This suggests that the ARCS Model of Motivation, in its focus on motivation has the potential to improve success rates, as students' outlook toward the course improves.

In the field of science and technology, Chang et al. (2018) incorporated the ARCS Model of Motivation into a problem-based learning model in a flipped classroom environment that led to satisfactory results. Their findings that "the experimental group had a significant improvement in their learning results after the implementation of the teaching method [underpinned by the ARCS Model of Motivation] in this study" (Chang et al., 2018, p. 12) affirm the validity of the ARCS model as an instructional approach to improve success.

Keller's ARCS Model of Motivation was, therefore, the approach of choice because it enabled the researchers to engage with the various components of motivation in the design of the intervention. The researchers conducted the intervention based on the hypothesis that there was a flaw in the student's motivation, causing them to fail the module several times. However, using Keller's ARCS Model, they could also reflect on the strengths and weaknesses of their instruction in the ENG2602 module. With motivation being addressed through the ARCS Model, they expected to see some improvement in student success and throughput rates, similar to what has been experienced by other scholars using this model.

Methodology

The intervention took four months and was facilitated by five academics from the English Studies Department, including the author. The study utilized voluntary and purposeful sampling. Researchers use purposeful sampling intending to ensure certain, specific characteristics in the participants (Kilinç & Firat, 2017;

O'Donnell, 2011; Tafur-Arciniegas & Lara Contreras, 2018). In this case, the researchers specifically needed students who were in their final year of the BEd degree and remained with the ENG2602 module (among others) to complete their degrees, hence sampling being purposeful. The voluntary sampling technique is applicable when participants volunteer to take part in research (Alvi, 2016; Thubakgale & Chaka, 2016). The intervention began with students who requested help to develop relevant competencies to meet the module outcomes, via email. They volunteered to be part of the intervention, thus the sampling being a combination of both voluntary and purposeful elements. After the release of examination results, this number increased to 200 on-the-brink BEd students. Of these, only 150 ENG2602 students qualified for the FI Concession.

This study adopted the mixed-method approach. Brien and McAllister (2016) caution that the term "'mixed methods' is often incorrectly used to refer to research involving a number of research disciplines" when in fact "it has a singular and more specific meaning" (Brien & McAllister, 2016, p. 172). This approach is utilized when, as in this study, research has qualitative and quantitative elements (Brien & McAllister, 2016; Creswell, 2014; Plano Clark & Badiee, 2010). Since this study was an intervention geared towards improving success in ENG2602, it was imperative to engage with performance statistics, thus using the quantitative aspect of statistical analysis. As the researchers also sought to understand the key factors affecting the students' motivation, they needed to use elements of the qualitative approach, such as drawing conclusions from students' reflections.

In line with the mixed-method approach, the research instruments used were performance statistics before and after the intervention. The statistics before the intervention served as part of the baseline survey to determine what the students' latest results in this module were at that point. A baseline survey is conducted at the starting point of research to form a basis for comparison to determine change or progress. The researchers extracted information on the students who requested support with the module content via email to determine the number of times each had repeated the module to inform the learning activities. Furthermore, they needed this information on previous attempts in the module and initial performance statistics to have a reference point to evaluate the efficacy of the intervention.

Since the students' motivation was low, the researchers began with formative, fun exercises that reduced the anxiety of failure to attract their attention as per the ARCS Model. The first activities were online in NoRedInk because the poor grammatical expression in some students' emails led the researchers to conclude that grammar was a contributing factor to their low success rate. To make the activities relevant, the researchers based them on the common grammar errors they had picked from the students' emails and other common errors encountered when marking students' assignments and examinations. In NoRedInk, if a student does not get the correct answer, a brief tutorial explains the rule that should be applied to arrive at the correct answer. The student then tries the question again, hopefully with better confidence. NoRedInk was, therefore, the lecturer inside the student's pocket.

The researchers also used the discussion forum on myUnisa for students to reflect on their performance and their use of available support, i.e., e-tutors, discussion forums, and additional resources such as video podcasts (vidcasts). Through reflections, they aimed to ascertain the students' use of existing teaching platforms to determine their relevance to the students' needs. They further hoped the reflections would help the students to diagnose each student's individual weaknesses for development. Tutoring would thus be relevant to their needs and hopefully, sustain their engagement as they would be learning aspects that they deemed important.

After the survey, students worked individually through the study guide, taking note of challenging sections to raise later. Thereafter, the researchers divided the study units among the five team members so that each could focus on one specific area. According to Keller (2009, p. 45), it is imperative to stimulate and sustain students' interest. Each research team member, therefore, spent a week or two on activities, per study unit, using the WhatsApp application as a connecting point for all the other technologies, namely myLife email accounts, myUnisa discussion forums and NoRedInk. The WhatsApp group was only for students in this intervention and this group was deleted after the intervention, for ethical compliance. The chats from the group were stored in a password-protected file. The researchers also uploaded some short vidcasts on myUnisa, as extra tutoring support. To further enhance relevance, the students completed activities based on the study units for examination, namely: Persuasive Prose and Prose Fiction.

Students then received the portfolio examination questions to complete individually over seven days, during which the author was available, both on the WhatsApp application and discussion forum on myUnisa, for support. The assessment had a content section based on the study units and a reflection section that would assess the student's ability to find their own external sources and apply them to a response related to the student's studies. Students submitted these portfolios via their myLife email accounts.

The limitation of using a portfolio of evidence (PoE) for assessment is that it is conducted in a less stressful environment (at home) with a longer time frame, unlike the two-hour venue-based examination from which the baseline statistics came. Comparing results from such varied examination conditions may not be a conclusive way to establish the efficacy of the intervention, however, the results could shed light on a possible alternative assessment approach.

The mixed-method approach in the study used quantitative and categorical methods to categorize statistical data based on the number of times students in the sample repeated the module. The other category was the performance percentages of the student results before and after the intervention. Descriptive summaries were used to explain these categories of statistical analysis and their implications. The study further employed qualitative analysis, specifically framework analysis. According to Goldsmith (2021), the "overall objective of framework analysis is to identify, describe, and interpret key patterns within and across cases of and themes within the phenomenon of interest" (p. 2061). In this study, the framework analysis was guided by the thematic approach based

on recurring concerns from students.

The methods of collecting data were on platforms where one would be privy to the students' identities. Therefore, in line with the ethical consideration, to retain anonymity, the study participants are referred to as "Student 1", "Student 2", etc., in cases where their personal responses are referred to.

Results

The following results are presented thematically based on information from the collected data.

Module Complexity

It has already been established that students sent emails indicating they were experiencing challenges in mastering the module content, leading to multiple unsuccessful repeats. The student's email below was very striking in this regard to module complexity.

| Student 2	"Dear Sir or Madam
	I have a problem in this module as the module left for me to complete. I wrote it for seven times, and I get F1 concession two times, but I failed. I lose hope now and I'm frustrated what I am going to do.
	At home I am a bread winner. I am a domestic worker and I earn R1 400.00 a month and I have 5 children. My husband had a stroke in 2011, so he is not working. I get child support grant of R1100.00 of the three children. I cannot afford to make a better life for my family. Please assist me."

The following graphs indicate the status of this cohort before the intervention began. The baseline statistics to determine the number of times the students in the intervention had repeated the module, presented in Figure 1 below, revealed that some students had repeated the module up to eight times.

Figure 1

*ENG2602 Repeated Failure Statistics – Whole Group*
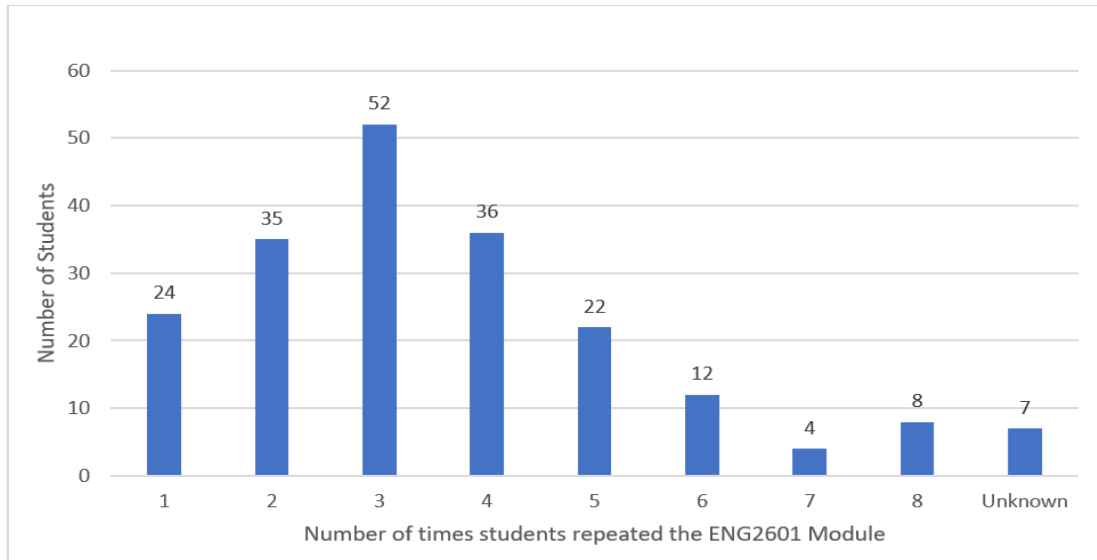
Out of the 200 students who were part of this study, the researchers could not access the profiles of seven students due to outstanding fees. For the rest, the statistics demonstrate that 134 out of 200 (67%) students had repeated the module more than two times. Of these students, 18% have repeated the module more than five times.

Figure 2 below shows an item analysis of the students' results in the examination before the intervention.

Figure 2

ENG2602 Results before Intervention
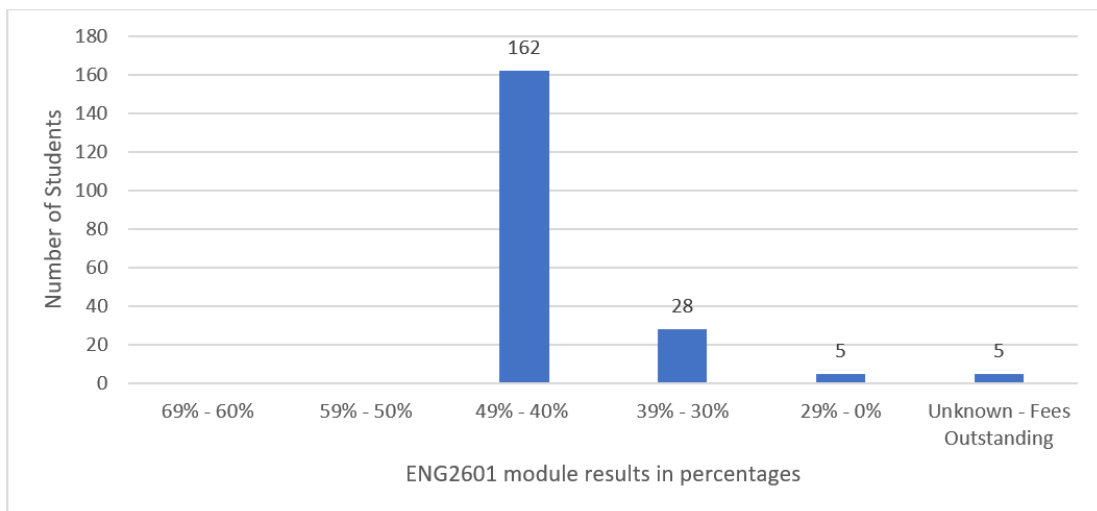
Due to outstanding student fees, the researchers could not obtain information on five students. The results before the intervention demonstrate that 162 out

of 200 students, which is 81% of the cohort, obtained a score between 40% and 49%. This means that they only needed less than 10% to pass.

From these initial statistics, it is evident that students were struggling with the module. The students' reflections on the *myUnisa* discussion forum and the summative PoE related to the broad question of "What led to students failing the module and what kind of support they needed?" Their responses showed three main areas of weakness, i.e., lack of quality in assignment feedback, need for extra tutoring support, and venue-based examination duration. Below is a summary of these weak areas in order of priority according to the students' reflections.

Assignment Feedback

Of the total student sample, 51% indicated that their challenges with the module were due to feedback:

- not being timely, sometimes arriving after exams;
- being abstract, rather than specific and detailed; and
- focusing on the negative aspects, thus being discouraging.

Among these, some revealed that they ignore assignment feedback. Some reflections relating to feedback are presented below.

Student 3	"Sometimes students ignore feedback because of the marks they already received and feel that they have already failed and do not have the need to change anything, because it won't make a difference. When some students desperately want to better their marks and do their best to follow the feedback given, it becomes difficult. Some feedbacks are not clear and only states that it was wrong, it does not always give an indication of what to do and how to fix it."
Student 4	"I believed I failed the module because of my assignments. I did not get feedback on them, I only received feedback after I wrote the exams. So due to confusion and lack of understanding I failed the exam." *(2018-02-17 18:21:17)*

Student 5	"The problem has to do with lack of understanding the feedback itself. Sometimes, I would get a feedback that tells me that my essay lack argumentation while I thought I had done that. […] I think it would be better if you could give an example of what I should have written."
Student 6	"Sometimes when we look at the previous examination papers, we notice that the exams are not the same as the assignments ending up focusing on the papers instead of the feedback."

Need for Extra Tutoring Support

This was cited by 44% of the study sample as a stumbling block. These students felt that they needed face-to-face or video conferencing tutorials that they could access from UNISA campuses. There was also a request for video tutorials that simplified the learning material. For some, this need for extra learning support was due to limited access to internet connectivity, which meant that they could only spend a limited time on the myUnisa platform engaging with online tutors or lecturers. The PoE reflections from some students encapsulate this need as seen below.
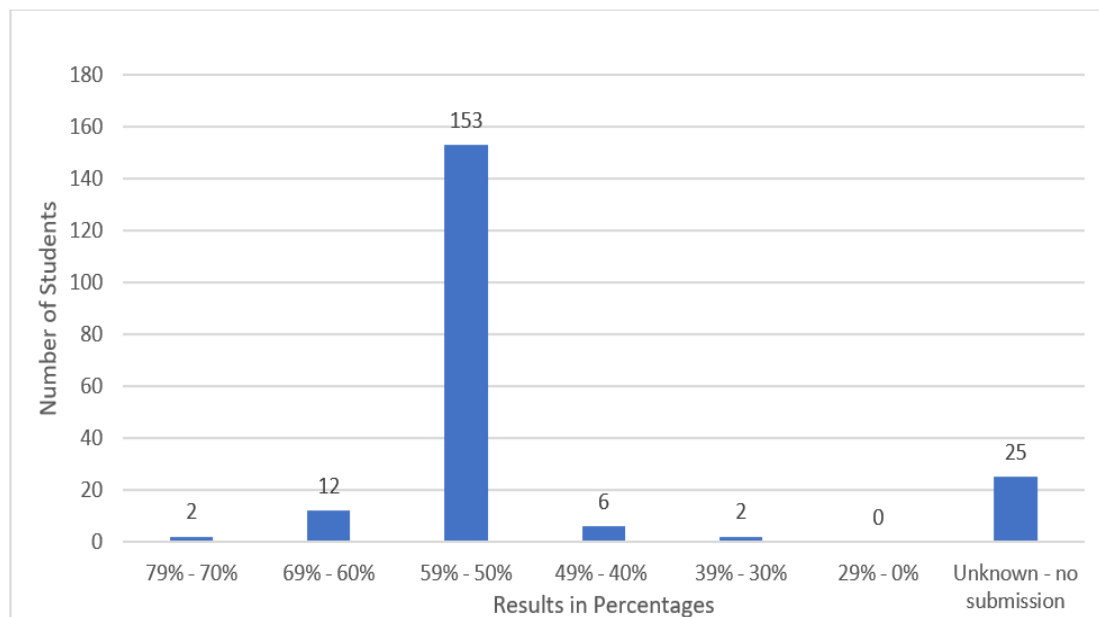
Student 7	"If I were possible for me to change the current approach of teaching at Unisa, I would make sure that students get a chance to see a lecture at least twice a week for all their concerns regarding their modules because some students find it hard to communicate with the lectures on the online platform, some do not even have access to the internet. Some students understand better if the person explaining is in front of them as we all have different learning styles."
Student 8	"I would ensure that students are given enough material that makes it easy for them to cope on their own hence the University offers long distance learning. I would ensure that learners are given proper and effective feedback on assignments and other visual tutorial aids such as video footage where lectures explain some of the complicated content of the modules offered by the university."

Venue-based Examination Duration

For 36% of the students in the cohort, the two-hour duration of the examination was a challenge due to the intensity of the analysis required. The discussion forum reflections from two students are presented below.

Student 9	"This module is complicated, it requires lot of writing. it is not easy to write 2 essays of not less than 2 pages in 2 hours' time.
	The courses of repeating this module for me is that it took me long time to read and understand an extract that was given in the exam, let alone to write 2 pages for section A. I did not finish writing section A, looking at the time I had to move on to section B which was a poetry. Again, to read a poem takes lot of time because you must get theme which it not easy, you need to read a poem more than one time and, in the exam, you cannot read loud, yet reading loud is helping in getting a theme quickly. The writing of 2 pages it is also a concern." *(2017-11-08 12:30:15)*
Student 10	"Hi i am […] Thanx for the opportunity. 2 hours were too short for me. I have a problem to analize properly." *(2018-02-17 16:35:42)*

The previous statistics presented in Figure 2 on the results before intervention showed that 81% of the students are held back by 10% or less from completing their degrees. The statistics after the intervention demonstrate an improvement in results that led to most of the students in the cohort passing the module, as the graph in Figure 3 on results after intervention below indicates.

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Figure 3

ENG2602 Results after Intervention

The tutoring support enabled the researchers to bridge and, for a few students, even surpass this 10% gap. In fact, 95% of the students, who opted to write the portfolio examination, passed. The 25 students who still needed to submit, either could not be reached on their phone numbers or opted to write the supplementary examination at the end of the semester.

Discussion

From the study, the researchers realized that their offering has gaps in all four dimensions of the ARCS Model of Motivation (1987; 2009). The gaps are in Attention due to limited meaningful internet connectivity, in Confidence due to the complexity of the module, and in Relevance and Satisfaction due to feedback challenges, and a lowered "expectancy for success" (Keller, 1987, p. 3) among repeating students, due to the examination duration. These have contributed to repeated failures in the module. Challenges occur at three levels: institution, department, and student level. During the intervention, the researchers tried to mitigate some of these, which revealed possibilities of how such challenges can be addressed in the future. The ARCS model is largely used to plan instruction in advance. This study has demonstrated that this model can also be a tool for finding gaps in implementing the existing instructional design. By identifying gaps in students' motivation, ODeL institutions can determine ways to address these gaps and strengthen their teaching methods, irrespective of whether they were based on the ARCS model from the outset.

The Gap in Attention – Meaningful Internet Access

In a CODeL institution, all students need access to electronic devices from which they can access resources and study materials. Meaningful internet access

is therefore crucial; without it, students' attention is already lost. As Keller et al. (2016) also argue in ARCS model, emphasis is "not only on generating attention but sustaining it" (p. 69). Lack of meaningful internet access meant that attention was not being sustained. With the intensive tutoring happening on the seemingly more affordable WhatsApp application first, before other platforms, the researchers could maintain meaningful engagement, thus sustaining attention.

The Gap in Confidence – Module Complexity

The study has also revealed that students find the module challenging, which could lower their "self-efficacy beliefs" (Bandura, 1989; Zimmerman & Cleary, 2006). This is primarily due to its complex nature, which requires the application of critical analysis. In their quest to develop the skill of critically analyzing texts, students were frustrated by the inaccessibility of academics, which is ironic because of all the available support; e-tutors were the least consulted, with only 29% of the students utilizing this service. This implies that students relied on lecturers rather than working with existing e-tutors.

The students' requests for tutoring support revealed a lack of synergy in the university's offering because what they needed was already offered. By introducing tutoring on the WhatsApp application as part of the LiP approach, the researchers were able to quickly contact students and synergize tutoring by directing students to other relevant platforms. Tutoring on this application, thus, enabled the researchers to harness other existing technologies. This platform also encouraged students' participation and helped them regain their confidence. Milman and Wessmiller (2016) argue that "[o]nce you have captured learners' attention and they perceive it is relevant, then the instructor's task is to convince them that they are capable of accomplishing the task at hand" (p. 70). The discussions on the WhatsApp application assisted students in believing in their abilities, as reflected in the following student's comment below.

Student 11	"I'd say engaging with my lecture and fellow students helped me a lot. A lot of ideas and different mindset to answers kept me on the edge of wanting to learn more. Through participation and asking questions where I couldn't understand, also getting clarification via my lecture prepared me well for the portfolio. The discussions we had played a big role in boosting my confidence for the portfolio. My mind perspective expanded throughout for ENG 2602. Without those discussions, I wouldn't have made it."

This student passed the module, which validates Malik's (2014) assertion that "Motivational strategies can improve the disposition of the learners to finish the course successfully and the number of learners successfully finishing the courses can increase" (p. 197-198). The statistics presented in Figure 3 on the

ENG2602 Results after Intervention, also allude to the increase in the success rate when the gaps in motivation are addressed.

The Gaps in Relevance and Satisfaction - Feedback

Assignment feedback which is a crucial didactic tool in an ODeL/CODeL institution, ironically poses a challenge to most of the students in this study. The students' complaint that individual feedback was not timely is contrary to "provid[ing] informative, helpful feedback when it is immediately useful" which Keller (1987, p. 5) advances as a satisfaction strategy. Malik (2014) also suggests that to improve satisfaction among students, educators should "make turn-around time for assignments short" (p.197). The complaint, thus, revealed a gap in relevance because delayed feedback means that by the time it is received, it may no longer be perceived as relevant by students. This also impacts satisfaction as students' gratification is delayed. The WhatsApp application discussions expedited feedback; students could immediately tell where their strengths and weaknesses lay as feedback was instant.

Concerns about feedback at the departmental level were that it was vague. This is contrary to Milman and Wessmiller's (2016) suggestion that instructors should "highlight specific ways in which [learners] can grow" (p. 70). The student's attitude towards it further hampers the didactic purpose of individual feedback, as some ignore feedback. Such attitudes reflected by Student 6 reveal a limited understanding of the formative purpose of assignments: to "help learning" (Harlen, 2012, p. 87). Students' requests for sample essays imply that students want to regurgitate what lecturers write rather than develop critical analysis skills. All these factors made feedback ineffective, as it no longer serves the didactic purpose it should. The students' challenges regarding feedback reveal drastic flaws that could severely impact motivation.

The Gap in Confidence and Expectancy for Success – Examination Duration

For students who identified the examination duration as the main course of failure, writing the examination again under the same conditions could lead to a lowered "expectancy for success" (Keller, 1987, p.3), as they have already failed due to this time restriction. The researchers mitigated this time factor by making the summative assessment a portfolio examination.

Conclusion and Recommendations

This study set out to determine gaps in student motivation that led to repeated failure in the ENG2602 module to support on-the-brink BEd students to complete their qualifications. As indicated in the findings, the study has revealed gaps in the four categories of Keller's ARCS Model of Motivation (1987; 2009). The PoE results presented in Figure 3 demonstrate that success rate improves if existing resources are made available. The LiP approach seems to promote synergy in tutoring support, mitigating gaps in the learning process, which improves success and invariably throughput rates. Therefore, the researcher recommends the following:

1. In an ODeL context, constant communication between academics and students is important. In this study the WhatsApp application was utilized; however, any suitable affordable platform can be used. This will help academics to maintain the student's attention. To achieve this, ODeL institutions could consider negotiating a lower price for the bulk purchase of tablets for all newly enrolled students to improve access to their LMS and all the resources therein. The amount of this device can be added to the student fees. Thus, lecturers will be placed inside the students' pockets from the onset and their attention can be better sustained.

2. Where module complexity lowers confidence, students require constant guidance from academics, i.e., lecturers, tutors, and teaching assistants. Furthermore, additional resources need to be provided to students via various platforms. However, there needs to be synergy between all the academic support provided, to limit confusion, which lowers confidence. Announcements about the availability of e-tutors and additional resources can be sent through free digital and print media to all students enrolled in ODeL institutions. Departments in ODeL institutions can conduct virtual tours on finding and participating in one's e-tutor/teaching assistant class and accessing and saving additional resources.

3. The number of markers should enable a ratio of 1:150 scripts per assignment/ examination to improve individual assignment feedback turnaround.

4. Commenting should be simplified and students' strengths should be acknowledged for effective remedial purposes and confidence building, in line with Milman and Wessmiller's (2016) argument that "[w]hen instructors provide formative feedback, they should emphasize students' strengths" (p. 70).

5. Academics in ODeL institutions need to train students to become self-assessors through virtual classes or vidcasts that explain how students should interpret the assessment rubric, thus making the markers' comments relevant.

6. ODeL universities with timed examinations may consider lengthening the paper duration to reduce anxiety and increase the "expectancy for success" (Keller, 1987, p. 3) while minimizing failure that is due to insufficient examination time. Alternatively, module teams can consider revising the examination structure to align with the limited examination time.

7. For on-the-brink students, the ODeL institutions may amend their assessment policy to provide the FICan-type assessment of all on-the-brink students. Once amended, an e-tutor/teaching assistant or module team member should provide tutoring using existing resources, as was done for the FICan project in this study.

This will help improve success rates at UNISA and in all ODeL institutions that need to support final-year students, remaining with one or two modules, to complete their qualifications. Furthermore, this study has demonstrated that

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the ARCS Model of Motivation can be used beyond the planning stage, as a benchmark to diagnose gaps in motivation that may be affecting success rates. Finally, the study has shown how the LiP approach can facilitate the ARCS Model of Motivation, because placing the lecturer in the student's pocket can enhance and sustain students' motivation in ODeL.

Limitations of the Study

The study is limited as it only focused on one aspect – motivation – as the cause of low success rates in ENG2602. Further research can be conducted to determine other causes for the low success rates in this module, such as the limited participation in e-tutorial classes. Moreover, since this is a case study, this implies that the results may vary if this study were replicated in a different context with a different cohort of students with different needs. Moreover, since this is a case study, the findings are in a different context and have a cohort of students with different needs. With these, the results may vary. The results are also bound to vary using different modes of summative assessments (venue-based versus non-venue-based). In this case, however, this discrepancy in assessment styles indicates an alternative assessment form for consideration. While this is a case study in a specific module in a South African ODeL university, it can be replicated, to a degree, in other ODeL institutions facing a similar challenge.

References

Alvi, M. H. (2016). *A Manual for Selecting Sampling Techniques in Research.* University of Karachi, Iqra University. Pakistan. https://mpra.ub.uni-muenchen.de/70218/1/

Aluko, F. (2015). Throughput rates in open distance learning: Towards understanding and managing the 'revolving door' syndrome'. In M. Letseka (Ed.), *Open Distance Education (ODL) in South Africa.* Nova Publishers.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175 – 1184. https://doi.org/10.1037/0003-066X.44.9.1175

Bosch, T.E. (2009). Using online social networking for teaching and learning: Facebook use at the University of Cape Town. *South African Journal for Communication Theory and Research, 35*(2), 185 –200. https://doi.org/10.1080/02500160903250648

Brien, D. L., & McAllister, M. (2016). Methodological and Other Research Strategies to Manoeuvre from Single to Multi- and Interdisciplinary Project Partnerships". In B. Harreveld, M. Danaher, C. Lawson, B.A. Knight, & G. Busch (Eds.), *Constructing Methodology for Qualitative Research.* Macmillan. https://doi.org/10.1057/978-1-137-59943-8_12

Chang, Y., Song, A., & Feng, R. (2018). Integrating ARCS Model of Motivation

Lungelwa Phakathi

and PBL in Flipped Classroom: A Case Study on a Programming Language. *EURASIA Journal of Mathematics, Science and Technology, Education, 14*(12), 1–15. https://doi.org/10.29333/ejmste/97187

Creswell, J. (2014). Research design: Qualitative, quantitative and mixed methods approaches (4th ed.). Sage.

Czerniewicz, L., & Brown, C. (2009). A study of the relationship between institutional policy, organisational culture and e-learning use in four South African universities. *Computers & Education, 53*(1), 121–131. https://doi.org/10.1016/j.compedu.2009.01.006

Dunpath, S. & Dunpath, R. (2015). Student Support for Open Distance Learning (ODL). In M. Letseka (Ed,) Open Distance Education (ODL) in South Africa. New York: Nova Publishers.

Gregson, J., & Jordan, D. (2006). Exploring the Challenges and Opportunities of M-learning. In Ally M. (Ed.), *Mobile Learning: Transforming the Delivery of Education and Training*. AU Press.

Hamman, N. (2019). Innovative teaching: Digital teaching lab. Department of Communication Science. University of South Africa. https://www.unisa.ac.za/sites/corporate/default/Colleges/Human-Sciences/Schools,-departments,-centres,-institutes-&-units/School-of-Arts/Department-of-Communication-Science/Digital-Teaching-Lab

Harlen, W. (2012). On the relationship between assessment for formative and summative purposes. In Gardner, J. (Ed.) Assessment and Learning. Sage.

Howland, J., & Moore, J. (2002). Student perceptions as distance learners in internet-based courses. *Distance Education, 23*(2), 183–195. https://doi.org/10.1080/0158791022000009196

Keller, J. (1987). Development and use of the ARCS model pf instructional design. *Journal of Instructional Development, 10*(2), 1–9.

Keller, J. (2009). *Motivational Design for Learning and Performance: The ARCS Model Approach.* Springer.

Kilinç, H., & Firat, M. (2017). Opinions of Expert Academicians on Online Data Collection and Voluntary Participation in Social Sciences Research. *Education Sciences: Theory and Practice, 17*(5), 1461–1486. https://doi.org/10.12738/estp.2017.5.0261

Letseka, M., & Karel, K. (2015). Pass Rates in Open Distance Learning. In M. Letseka (Ed.), *Open Distance Education (ODL) in South Africa.* Nova Publishers.

Malik, S. (2014). Effectiveness of Arcs Model of Motivational Design to overcome

Technology-Based Support of Final Year Bachelor of Education Students in a South African Open Distance e-Learning Institution

33

non-completion rate of students in distance education. *Turkish Online Journal of Distance Education, 15*(2), 194–200. https://doi.org/10.17718/tojde.18099

Mayisela, T. (2013). The potential use of mobile technology: Enhancing accessibility and communication in a blended learning course. *South African Journal of Education, 33*(1), 1–18. https://hdl.handle.net/10520/EJC130328

Milman, N. B., & Wessmiller, J. (2016). Motivating the Online Learner Using Keller's ARCS Model. *Distance Learning, 13*(2), 67–71. https://www.proquest.com/docview/1822357197?pq-origsite=gscholar&fromopenview=true

Ministry of Education. (2001). *National Plan for Higher Education.* http://www.dhet.gov.za/HED%20Policies/National%20Plan%20on%20Higher%20Education.pdf

Motlik, S. (2008). Mobile learning in developing nations. The International Review of Research in Open and Distance Learning, 9(2), 165–171 O'Donnell, H. (2011). *Expectations and voluntary attrition in nursing students".* Nurse Education in Practice, 11,54–63. https://doi.org/10.1016/j.nepr.2010.08.002

Plano Clark, V., & Badiee, M. (2010). Research Questions in Mixed Methods Research". In Tashakori, A. & Teddlie, C. (Eds.), S*age Handbook of Mixed Methods in Social & Behavioral Research.* Sage Publications Inc. https://methods.sagepub.com/book/sage-handbook-of-mixed-methods-social-behavioral-research-2e/n12.xml

Pitsoe, V., & Baloyi, G. (2015). Conceptions of Success in Open Distance Learning. In M. Letseka (Ed.), *Open Distance Education (ODL) in South Africa.* Nova Publishers.

Prinsloo, P., Slade, S. & Galpin, F, (2012). Learning Analytics: Challenges, Paradoxes and Opportunities for Mega Open Distance Learning Institutions. In S.B. Shum, D. Gasevic, R. Ferguson (Eds.), *Proceedings of the Second International Conference on Learning Analytics and Knowledge* (pp. 130–133). University of British Columbia.

Ravjee, N. (2007). The politics of e-learning in South African higher education. *International Journal of Education and Development using Information and Communication Technology, 3*(4), 27–41.

Shandu-Phetla, T. (2017). *Designing and Implementing Mobile Based Interventions for Enhancing English Vocabulary in ODL.* [PhD Thesis, University of South Africa]. https://uir.unisa.ac.za/handle/10500/23638

Sondlo, M. (2013). *A Comparative Study of Student Retention and Throughput in a Postgraduate Distance Education Programme.* [M.A. Dissertation,

Lungelwa Phakathi

University of Pretoria]. https://repository.up.ac.za/handle/2263/40398

Spooner, F., Jordan, L., Algozzine, B, & Spooner, M. (1999). Student Ratings of Instruction in Distance Learning and On-Campus Classes. *The Journal of Educational Research, 92*(3), 132–140. https://doi.org/10.1080/00220679909597588

Tafur-Arciniegas, M., & Lara Contreras, A. F. (2018). *First Approach to Purposeful Sampling for Determining Key Factors on Outcome Bias* Paper presented at 2018 ASEE Annual Conference & Exposition, Salt Lake City, Utah. https://doi.org/10.18260/1-2—30518

Thubakgale, K.N.S., & Chaka, C. (2016). Possible effects of text messaging on Grade 11 EFAL learners' written work. Language Matters, 47(2),223–245. https://doi.org/10.1080/10228195.2016.1185139

University of South Africa. (2013). *Assessment Procedures Manual.* https://staff.unisa.ac.za/sites/intranet/default/Policies/Teaching,-Learning-Community-Engagement-and-Student-Support

Zimmerman, B., & Cleary, T. J. (2006). Adolescents' development of personal agency', in Parajes, F. and Urdan, T. (Eds.), *Adolescence and Education: Self efficacy beliefs of adolescents, 5*, 45–69.

Technology-Based Support of Final Year Bachelor of Education Students in a
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