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Abstract: This article reviews literature on the role that educational quality plays on students' Grade Point Average (GPA) and Examination Attrition Rates. In this article, educational quality is termed as a situation where there are quality: learning environments, content, processes and student outcomes. UNICEF (2000) proposed that where there is educational quality, students' outcomes may include; high Grade Point Average, high student retention and low examination attrition rates. According to De Remer (2002) examination attrition is defined as a student's departure from the school or possible departure from the entire educational system while Grade Point Average (GPA) numerically represents a student's quality of performance (Hamshire, 2017 and Douglas and Fredendall, 2004). GPAs are often used to determine if a student qualifies for a certain academic action. The GPA is a world recognised grading system that determines the overall competence across all subjects (Susan et al., 2011). Though academic reasons for attrition and low students' GPA have not been exhausted and can be different from one setting to another, Moore and Shurock (2006) stated that examination attrition rates and low GPA are the major quality outcomes. Increase in examination attrition rates and low Grade Point Average (GPA) are growing concerns in most institutions of higher learning (Tyre-Smith, 2010). In higher learning institutions high GPA is a primary goal though Tyre-Smith (2010) stated that improvements in attaining it seem to be ineffective. Student attrition and low GPA in higher education has remained a much studied but little understood phenomenon.

Key words: Educational quality, examination attrition, Grade Point Average

1. INTRODUCTION

Joshi (2012) stated that educational quality is an essential component in enhancing and maintaining the quality of teaching and learning in an institution. It is a major contributor to the high performance of students. Defining "quality" is difficult as it is subjective and dynamic. It has different meanings from different scholars. Sallis (2014) defined quality in relative terms as a state of reaching required standards as prescribed by the external agencies. In the bid to explain educational quality well, Grant (2012) related education to a service industry where quality is considered both at production level (creation of appropriate medical graduates) and perceptual level (maintenance of institutional values and principles). The production level involves how teaching and learning take place. It includes management of courses, the teaching characteristics and the assessment processes. The perceptual level looks at how the institution makes sure that the values and principles are maintained. Besides, at production level it is not possible to produce quality medical graduates or teachers if the quality of the curriculum that is used to prepare students for the labour market determines the quality of products of such a curriculum. The argument by Bishop is very cardinal to reflect on if the country is to produce the crop of graduates who may add value to human society.

The definition of educational quality by UNICEF (2000) takes into account the global and international influences that propel the discussion of educational quality. Educational quality can also be used for external quality assurance and accreditation standards by international agencies.

Educational quality is also an important component in accreditation. Accreditation is important because it gives assurance to the public, in particular to prospective students that the education provider meets education quality standards required in the global market. It also helps prospective students feel secure in accessing the international market when they need to measure the quality of different learning institutions. Educational quality can contribute to low examination attrition rates and raise students' GPA (Daka, Banda and Namafe, 2017).

2. THE CONCEPT OF EDUCATIONAL QUALITY

Scholars who have taken time to scrutinise the quality of the education system, namely; Biggs (2001); Cochran-Smith (2005) and Roofe and Miller (2013) have all argued that if a particular curriculum was designed to achieve clearly defined outcomes, then it would increase the performance of the graduates in their future responsibilities upon graduation. In order for various readers to have a thorough understanding of what educational quality entails, the authors of this paper found it conducive and important to discuss different variables that contribute to educational quality. In the subsequent subsections various variable are discussed.

2.1. Quality of Learning Environment

For positive learning outcomes to be achieved there is need for quality learning environments. Learning environments are made up of physical, psychosocial and service delivery elements. Factors such as classroom maintenance, space and furniture availability all have an impact on the criticality of learning. Lazzio (2010) highlighted in his study for the National Center for Teacher Effectiveness (NCTE) in a three (3) year data collection process in the United States of America (USA) that students' perceptions of their current learning environment were a stronger predictor of learning outcomes at university than prior achievement at school. From Lazzio's study, it can be inferred that the learning environment has a bearing on students' academic performance.

Osborne (2013) added that many of the modern learning environments being built today promote and support a range of pedagogies including delivering, applying, creating, communicating and decision-making. Such learning environments support strengths-based teaching and can offer students and teachers flexibility, openness and access to resources. Lecturers in such environments are provided with an open, flexible learning environment where inquiries are shared, interventions devised collaboratively, and reflections are based on both self and peer observations. All these factors can lead to the development of a robust and continuously improving quality of learning.

A welcoming and non-discriminatory climate is critical and needs to be maintained as it creates an environment for quality-learning. Further, comments from lecturers on the achievement of learners are very vital. Some negative perceptions of lecturers towards learners and comments are barriers to quality learning. Reducing other forms of discrimination is also critical to quality improvement in learning environments. Ulug *et al.*, (2011) from their studies showed that teachers' positive perceptions of lecturers towards learners positively influence students' personality as well as their life performances. Based on these findings the teacher's role in lifespan education is seen as stretching beyond simple knowledge transformation. This is from the understanding by Osborne (2013)that education is the activity that aids new generations to obtain the necessary information, ability, attitude and understanding and develop their character while preparing them for communal life; and all these are transmitted from the teacher. Osborne (2013) also added that the most important factor in education and teaching activities is the teacher's attitude towards teaching.

Guidance and counselling services and the provision of extracurricular or co-curricular activities are other examples of service provision that contribute to quality school environments. It should also be noted that this learning begins with quality content (Osborne, 2013). This is in agreement with what Fredricks *et al.*, (2006) found out from their study among African American and European American youths in the USA that active participation can be linked to positive academic outcomes, including improved grades, test scores, more school engagement, and increased educational aspirations. Wilson (2015) also explained that students who participate in extracurricular or co-curricular activities generally benefit from the many opportunities accorded to them. Benefits of participating in extracurricular or co-curricular activities include having better grades, having higher standardised test scores and higher educational attainment, attending school more regularly, and having a higher self-concept.

2.2. Quality Content

In order to have quality content in the teacher education and medical school curriculum, it is advisable for curriculum developers to take into consideration the link that exists between theory and practice. Mulenga and Luangala (2015) argued that conducting situational analysis prior to curriculum development is a solution that could bridge the gap between theory and practice. It can therefore be argued that the absence of situational analysis may lead to develop a general curriculum at the expense of the professional curriculum. In general, a worthwhile curriculum should emphasize covering concepts in depth so as to ensure that learners understand the subject matter rather than covering a broad range of concepts without much explanation as the latter does not stress skills development as well as knowledge acquisition (Smith, 2009). In all content areas, Oziga (2007) stated that curriculum should be based on clearly defined learning outcomes. There is also need to involve the lecturers who teach the particular courses in curriculum design as they would be comfortable to teach what they designed. To be most effective, quality content must be imbedded in a context of quality processes (Feller, 2006).

2.3. Quality Processes

Massy (2014) emphasised that quality-process reviews are founded on the principle that good people working with sufficient resources and according to good processes will produce good results. He further argued that on the contrary faulty processes will prevent even good people and plentiful resources from producing optimal outcomes. This demonstrates the importance of quality process in educational quality. Quality-process reviews generally take place at the institutional level, though there is nothing to prevent subject-level audits. Most Medical schools that have quality lecturers and sufficient resources use quality processes in order to produce students with high GPA and such institutions have low examination attrition rates (Kuhn, 2006). In our study, the quality process had to include both performance assessment and assessment of factual knowledge which were determined through student outcomes (Dockter, 2001; Weddle, *et al.*, 2002; Smith, 2009 and Mashaba, *et al.*, 2003).

2.4. Student Outcomes

Quality learner outcomes are intentional expected effects of the educational system (Kane, 2006). They include what students know and can do, as well as the attitudes and expectations they have for themselves and their societies. Student achievement results are important indicators of educational quality. However, achievement results can be interpreted meaningfully only in the context of the system that produced them. This again points to the quality of the curriculum as well as various ways and means of assessing the teaching and learning processes. It is worthwhile stating that where there is educational quality, the students' outcomes include: High Grade Point Average, high student retention and low examination attrition rates (Shelton, 2003; Hamshire, 2017, Bateman, 2016 and Daka, *et al.*, 2017).

Figure 1 on the next page summarizes the process of educational quality as discussed above.

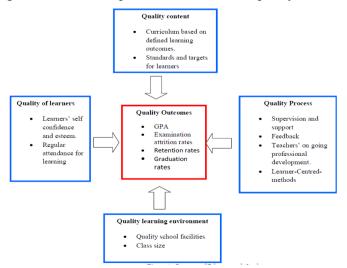


Figure 1. Process of Educational Quality

(Adapted from UNICEF, 2000)

The evidence from literature also showed that the quality of learning contributes to high GPA and low examination attrition rates (Hamshire, 2017).

3. QUALITY LEARNING

It should be noted that all the variables that have been discussed in the preceding subsections were highlighting various areas that can bring about quality learning. It is slightly difficult to talk about quality learning in the absence of quality teaching. Luangala and Mulenga (2011) contended that the lesson can only be said to be taught when learning has taken place amongst the learners. It is the quality of teaching and learning in higher institutions of learning that can bring about High Grade Point Average, high student retention as well as low examination attrition. In modern world, Osborne (2013) proposed that quality learning is a combination of a good number of elements that are discussed in the subsections that follows.

3.1. Personalised Learning

It is stated that no two individuals learn in the same way, nor do they bring the same prior knowledge to a learning experience (Farmer, 2004). The way we learn is as unique as our fingerprint. This means that for quality learning to take place, there is need to use a variety of teaching strategies. Sampson *et al.*, (2010) explained that the concept of personalisedlearning builds mainly on the cognitive and constructivist theories of learning.

Cognitive learning theory is based on the idea that humans process information which they receive. This happens when the learner plays an active role in seeking ways to understand and process the information received. Unlike behaviouristlearning theory, cognitive learning theory proposes that information processing is governed by an internal process (Schunk, 2005). Therefore, cognitive approach to learning theory pays attention to mental process. Some examples and applications of cognitive learning theory include discussion and problem solving among many other teaching approaches.

On the other hand, constructivist learning theory is based on the premise that learners are to construct their own perspective of the world based on their own individual experiences and internal knowledge. The theory advocates that since everyone has a different set of experiences and perceptions, teaching then must be unique and different for each person. Therefore, the learner needs a significant base of knowledge that can be used to interpret and create ideas.

Constructivist instructional theory requires that instructional designers determine which instructional methods and strategies would help learners to acquire understanding. During the instructional designing, it is important to put into consideration different approaches to learning and teaching so that all learners are helped in acquiring the required knowledge quality (Osborne, 2013). It is thus clear that management of teaching and learning activities is a component in educational quality.

3.2. Socially Constructed Learning

The theory of learning that best fits in socially constructed learning is Situated Learning Theory. This theory posits that learning is unintentional and situated within authentic activity, context, and culture (Zimmerman, 2011). Therefore, it is important that knowledge is presented in an authentic context (settings and situations that would normally involve that knowledge). In order to bring about learning, learners need to be involved in a community of practice which embodies certain beliefs and behaviours to be acquired (learn things that help them contribute to the meaningful development of their society).

Students learn through interaction with others and the physical world. Learning about any disease is more powerful if students visit a patient in a ward in addition to learning about them in a classroom or textbook. When students learn something that is not connected to the physical environment, they mostly forget and even lose interest in the concept. This is what in this article we are referring to as linking theory to practice by ensuring that situational analysis is done before developing the higher education curricular.

The collaboration, peer-tutoring and reciprocal teaching that occurs when students work together results in a deeper understanding of the material being covered. Hence, it is suggested that if students

work in groups as peers, they get motivated to work harder and perform better in examinations (Boekaerts *et al.*, 2006 and Wolters, 2003). This is one of the factors which contribute to quality education. This is noticeable in most higher learning institutions where students sit and discuss different questions from past examination papers and tutorial questions. They normally assign each other questions and topics to present during discussions. In this way, each presenter does more reading on the subject matter thereby gaining more understanding (Zimmerman, 2011). Based on what has been discussed, it can be concluded that when students work in groups as peers, it contributes to educational quality.

3.3. Differentiated Learning

The prior knowledge we all bring to a task means individuals require different levels of challenge, pace, content and context. Lawrence-Brown (2004) from his study in the USA among secondary schools stated that with differentiated instruction, students with different learning abilities can acquire quality education in a general education classroom. This requires teachers or lecturers to plan well for such types of lessons and to state the lesson objectives in order to offer the teaching that will achieve learning. This also requires standard-based instructional context with helpful instructional strategies and real-life examples. For all this to be effectively implemented, it requires competent teachers or lecturers to transmit worthwhile skills, appropriate attitudes and applicable knowledge into the students/learners for them to become relevant to their respective societies. Therefore, teaching characteristics play a major role in bringing about quality education.

3.4. Learning That is Initiated by Students Themselves

This type of learning is referred to as self-regulated learning. This is the type of learning where learners set goals for their learning and later attempt to monitor, regulate, and control their cognition, motivation, behaviour and the guidance of the environment (Schunk, 2005). The contextual regulation includes learners' perceptions of the task and context. Puntambekar *et al.*, (2005) proposed that for quality education to take place in any learning institution, approaches to learning should aim at scaffolding students' effort. Puntambekar *et al.*, (2005) also suggested that for this to be achieved, lessons need to be designed in such a way that students initiate the learning process in accordance with their educational goals and personal aspirations. In this case, it is acceptable to re-direct students to do programmes which they did not choose as their personal aspirations are shattered.

4. RELATIONSHIP BETWEEN QUALITY EDUCATION AND QUALITY OUTCOMES

It is important to note that there is a good relationship between quality education and quality outcomes. Dockter (2001) identified undergraduate institution educational quality as an important predictor of quality outcomes. Quality education has been applied as a way of improving performance in learning institutions (Kaynak, 2003). Several studies have shown the link between quality education and quality outcomes, using both factual data (Reason, 2009) and perceptual data (Dockter, 2001). To study this link, the data analysis was based on a series of multiple regressions (Pascarella *et al.*, 2005) and correlations (Curkovic *et al.*, 2000). However, few empirical studies identified the direct and indirect effects of quality education on performance of the students.

Two studies, carried out by Kaynak (2003) in the USA on Total Quality Management (TQM) examined these direct links using structural equation models and educational quality as a multidimensional construct as stated above. The researchers in these studies used exploratory research design to investigate how the two were related. From their studies, the findings showed that the two major quality outcomes were GPA and examination attrition rates. Therefore, it is important to state that there is correlation between the two quality outcomes (GPA and examination attrition rates). The link between education quality and quality outcome indicated that when there is quality education, the students' performance is high. This means that if courses are well managed by firstly developing a worthwhile curriculum followed by quality teaching and acceptable assessment processes; the examination attrition rates shall be low as many students shall perform well with high GPAs (Schindler, *et al*, 2015;Pokorny, 2016 and Bateman, 2016).

5. CORRELATION BETWEEN GRADE POINT AVERAGE AND EXAMINATION ATTRITION RATES

Most investigators have looked at the influence of undergraduate GPA on retention (Watson *et al.*, 2000; Dockter 2001; Weddle *et al.*, 2002; Reason, 2009 and Wilson, 2015). Some of these

investigators have found that undergraduate GPA is a significant predictor of educational success (Dockter, 2001). Several other scholars report GPA to be a major and direct predictor of attrition or retention (Biggs and Tang, 2007; Smith 2009 and Mashaba *et al.*, 2003).

Sulaiman and Mohezar (2006) also found that first-generation college students' end of first year semester GPA, was generally the best predictor of academic success. This was affirmed by Choy (2001) from his studies that showed that students' GPA was important because of the linkage it had to students' persistence and attrition. The study conducted by Choy (2001) also established that first-generation college students who had lower GPAs at the end of their first semester of college struggled to complete their studies in higher learning institutions. It can therefore be inferred that the lower the GPA of first-generation college students, the lower the probability of graduating within the stipulated period of time (Choy, 2001).

Pascarella *et al.*, (2005) from their research from some selected universities in the USA also showed that grades probably can predict student retention, degree completion and graduate school enrolment. High GPA reduces chances of students' attrition and increases the probability of timely degree completion. The study also showed that both first year grades and trends in subsequent grades predicted degree completion beyond the effects of other variables. In the same study by Pascarella *et al.*, (2005) it was found that undergraduate GPA explained 30.5% of the variance in academic achievement as measured by a comprehensive written examination administered at the end of the programme. Undergraduate GPA was also found to be predictive of clinical performance.

From the literature above, evidence shows that GPA and attrition rates are related. Those with high GPA have a high chance of completing their studies. It is also true that in courses or programmes with high examination attrition rates, the GPA is low and when the pass rate is high, it also implies high GPA in that course or programme. Both GPA and examination attrition rates are affected by the quality of education offered by an institution. Table 1 below shows a summary of studies on GPA and examination attrition rates.

Researchers	Findings
Reason (2009) and Wilson (2015)	Low GPA can result in low graduation rates and low retention of
	students.
Kuhn (2006)	BothGPA and examination attrition rates are associated with time
	spent preparing for class, coming to class prepared, asking questions
	in class, receiving prompt feedback from faculty.
Biggs and Tang (2007), Smith	GPA is a major direct predictor of attrition or retention.
(2009) and Mashaba et al.,(2003)	
Sulaiman and Mohezar (2006) and	First-generation college students' end of first year semester GPA is
Choy (2001)	generally the best predictor of academic success.
Dockter (2001)	The best predictors to graduation of students are undergraduate GPA,
	gender and race.

Table1. Researches on GPA and Examination Attrition Rates

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6. RELATIONSHIP BETWEEN EDUCATIONAL QUALITY AND GPA

The studies on the relationship between educational quality and GPA, started from as far as four decades ago. For example, Wilson (2015) examined the records of 66 minority students enrolled in the Case Western Reserve University School of Medicine, USA in the early 1970's. The investigator quantified each student's undergraduate institution quality based on GPA and the research results revealed that undergraduate quality contributed to student' GPAs. Thus the link between educational quality and GPA clearly indicates that when students are taught very well in their courses, they definitely perform well in various forms of examinations.

Additionally, other studies also showed that the most common measure of educational quality is GPA (Watson *et al.*, 2000, Weddle *et al.*, 2002, DeFreitas, 2011 and Diseth, 2007). The good grades were assumed to be a result of good teaching. Those with high GPA progressed up to graduation without academic problems and graduated within the required period of time. The good academic progress was due to the quality of education offered. This is in agreement with what was done earlier by Tinto (1993) from his studies on academic progression who reported that grade performance in many

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studies had proven to be the single most important factor in predicting persistence in colleges. All these evidences show that there is a relationship between educational quality and GPA.

Roehrig (1990) in the past two and half decades did a study in some selected medical schools of the USA where students in a physical therapy programme were divided into those who experienced academic problems in the programme (including those who dropped out or failed) and those who did not. Using the inferential statistics wheret-test was employed, Roehrig found a difference between the two groups in their undergraduate overall GPAs. Those who did not experience a problem in the physical therapy programme had a higher undergraduate GPA than those who did experience a problem.

Levine *et al.*, (2006) conducted a four-year study among American secondary schools to assess how entry selection helps in maintaining quality of education in higher learning institutions. In their study, Levine *et al.*, (2006) showed that students coming from pre-professional programmes with high bench mark quality standards had relatively high GPAs and were better prepared for the rigorous demands of the professional programme than those enrolled in programmes with lower bench mark quality standards. This therefore showed that high GPA for such students indicated that there was high quality education where they came from.

Earlier, Templeton *et al.*, (1994) at East Carolina University examined the predictive ability of 12 preadmission academic variables on physical therapy GPA. They examined the records of 111 physical therapy students in their programme. Using multiple regressions, they found that the way the undergraduate science courses were handled had a significant effect on physical therapy GPA. This also means that the way the course is managed by the course developers and implementers have an effect on GPA in learning institutions.

Besides, Bean *et al.*, (2006) conducted a study on the impact of quality learning environment of the institution as an important variable in determining the educational quality and how the latter contributes to students' GPA. Satisfaction of the student with the learning environment makes a student to have a strong sense of belonging to the institution. This study showed that quality-learning environment in an institution is highly correlated with high GPA. The researchers therefore concluded that student satisfaction seems to have a stronger effect on grades than vice versa (Bean *et al.*, 2006). From the aforementioned literature, this article shows that there is a strong relationship between educational quality and students' GPA. The implication on practice to those who complete with low GPA is that they normally have low self-esteem in places of work during their early days. In addition, such students never progress in their academic career path as they just end with first degree as they fail to qualify for higher degrees and feel discouraged. In the next subsection, the relationship between educational quality and examination attrition rates will be discussed.

7. RELATIONSHIP BETWEEN EDUCATIONAL QUALITY AND EXAMINATION ATTRITION RATES

It should be mentioned that low retention, low graduation rates and high examination attrition shall be used interchangeably as they carry the same meaning in this article. Knowing predictors of academic failure and success is also important for higher learning institutions that are trying to ensure high completion rates and develop support mechanisms for students with inadequate performance. The recurrence of high examination attrition has been attributed to various factors which include: the quality of content offered in the course, learning environment, process as well as the learners themselves. Different studies have been carried out to investigate various factors that contribute to attrition.

There is a strong link between attrition and educational quality as evidenced from students' performance on standardised tests (Billings, 2005). From the aforementioned, it can be suggested that examination attrition rate is one of the most important indicators being used to measure student performance. Yates *et al.*,(2012) also stated that high student attrition represents inefficiency in the use of resources if students who leave the school before graduating cannot apply in the labour market whatever human capital they have gained during their courses. In trying to find out the effectiveness of the mathematics teacher education curriculum at one of the Zambian Universities, Changwe (2017) revealed that the mathematics teacher education curriculum did not adequately prepare teachers of mathematics for effective teaching secondary school mathematics. The study revealed that both content and methods courses were loosely linked to the secondary school mathematics curriculum. 80

percent of the respondents which included lecturers of mathematics, student teachers of mathematics who were in their final year of study and they had done their school teaching experience as well as teachers of mathematics who had gone through the same teacher education curriculum and were teaching mathematics in Zambian secondary schools were of the view that the mathematical knowledge for teaching was greatly ignored hence exposing student teachers to the kind of mathematics which was irrelevant to their future responsibilities.

The level of abstraction and lack of relevancy in the content courses offered during teacher education programme led to low graduation rates or high examination attrition. Besides, teachers of mathematics who wanted to upgrade from diploma to degree level ended up diverting to other teaching subjects such as: Civic Education, English, Religious Education and History. Besides, the study by Changwe (2017) coincided with Andreas *et al.*, (2014) who argued that the mathematics that student teachers were exposed to in teacher education was neither necessary nor sufficient for secondary school teaching. Based on the research findings, it can be argued that when competency based curriculum theoretical approach is followed when developing the curriculum, it is predictable to have low examination attrition, High GPA and high student retention.

In addition, Smith (2009) stated that high examination attrition results from cognitive overload especially if where the students came from they were used to taking few courses. The research which was done among nursing students in the USA showed that most of the causes of attrition were academic in nature. The academic reasons for attrition were; failure to meet academic standards, academic difficulty, and lack of trained academic staff in methodology which were contributors to poor educational quality. These findings imply that poor educational quality results in high examination attrition rates.

In the field of nursing, different researchers have investigated student attrition. Mashaba *et al.*, (2003) mentioned in their study that the attrition rates, or what they called "wastage" was between 18% and 50% in the different nursing schools in South Africa. From their surveys of students who dropped out of university-affiliated nursing schools in South Africa, they found that 90% of them were first generation college students. During the analysis on causal factors, it was discovered that teaching practices were questionable in most of these nursing schools. It was also discovered that most lecturers were so busy in private hospitals. These lecturers missed many lessons and rarely gave detailed feedback in the assessment of students. This is in agreement with Mukuka-Hagane *et al.*, (2019) who pointed out that lack of formative assessment can lead to high examination attrition rates.

Jones *et al.*, (2008) who investigated among Humanities and Science students at the University of Adelaide found out that 36.4% attrition in higher learning institutions was a result of personal engagement by lecturers while 35.6% was due to poor assessment practices. The same research showed that attrition was due to academic factors. This means that different programmes have different examination attrition rates. This calls for more research to be done in orderto ascertain the cause of such differences.

Besides, Balon *et al.*, (2013) examined the attrition rate of students in a Canadian nursing programme which is closer to the United States geographically and socioeconomically. The study targeted all 159 students who were in a nursing programme between 1996 and 1998. They noted that out of 69 who responded to the questionnaire, 48 (69.6% were still in the programme and continuing with their classes, 12 (17.4%) had left the programme, and 9 (13.0%) were progressing behind their original class. Thus over 30% of the nursing students in this one programme either were not going to graduate on time. The study showed different factors contributing to these high attrition rates which among them included heavy course workload and failure by lecturers to explain the difficult concepts to the students.

Another study was conducted in the United Kingdom by Jacobs *et al.*, (2011) on attrition between 1970 and 1995 of medical students at the University of Nottingham. The review covered 2270 students who had been in that medical school for over a 25-year period. They noted that 6.5% of the students had left the programme before graduating due to failing examinations. The study investigated the causal factors and discovered that most students cited ill preparedness for the final examination. Jones *et al.*, (2008) also from their study indicated that educational quality was one of the academic factors that led to some students not graduating on time.

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It can therefore be concluded that there is a relationship between educational quality and examination attrition rates. Among the educational quality variables that have been cited from different literatures include: mismanagement of courses, poor assessment practices and teaching practices which this study focused on. It can be assumed that if courses are well managed with good assessment practices there can be low examination attrition rates in higher institutions of learning.

8. CONCLUSION

In this article, the authors have reviewed different literatures to suggest that there are different causes of high attrition rates and low GPA. In this article, it is demonstrated that there is a relationship between educational quality and high attrition rates and low GPA. The authors in this article have further proposed methods that learning institutions would need to put in place if they are to reduce examination attrition rates and raise the students' GPA. The factors leading to low GPA and high examination attrition rates need to be understood by institutional leaders so as to implement correct strategies in improving educational quality. It should also be mentioned that depending on the setting, the predictors to high examination attrition rates and students' GPA might be different.

REFERENCES

- [1] Andreas, J. S. & Gabriel, J. S. (2014). Viewing "Mathematics for Teaching" as a Form of Applied Mathematics: Implications for the Mathematical Preparation of Teachers, NOTICES of the AMS, 61, 266-276.
- [2] Balon, R., Alpert, J. E., Cluver, J. S., & Lewis, C. (2013). How to get help with starting your research project: ADMSEP task force on research and scholarship. *Academic Psychiatry*, *37*(4), *221-222*.
- [3] Bateman, H. L., McCracken, G. I., Thomason, J. M., & Ellis, J. S. (2016). Learning outcomes: Exploring implications of adopting a different level of detail. *European Journal of Dental Education*, 60 (6), 12-30.
- [4] Bean, J. P., & Metzner, B. S. (2006). A conceptual model of non-traditional undergraduate student attrition. *Review of Educational Research55: 485-540*.
- [5] Biggs, J. (2001). The *Reflective Institution: Assuring and Enhancing the Quality of Teaching and Learning.* Chicago: Prentice-Hall.
- [6] Biggs, J. & Tang, C. (2007). Teaching for Quality Learning at the University. New York: Open University Press.
- [7] Billings, D.M., & Halstead, J.A. (2005). *Teaching in nursing: A guide for faculty* (2nd ed). Philadelphia: W.B. Sauders.
- [8] Bishop, G. (1985). Curriculum Development: A textbook for Students. London: The Macmillan Press.
- [9] Boekaerts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? *Educational Psychology Review*, 18, 199–210.
- [10] Changwe, R. (2017). Effectiveness of the Mathematics Teacher Education Curriculum at the University of Zambia in Preparing Secondary School Teachers of Mathematics. M.Ed. Dissertation. The University of Zambia.
- [11] Choy, S., (2001). Students whose parents did not go to college: Postsecondary access, persistence, and attainment. In Findings from the Condition of Education 2001: *Students Whose Parents Did Not Go to College*. Washington, D.C.: National Center for Education Statistics.
- [12] Cochran-Smith, M. (2005). The new Teacher Education: For better or Worse. Educational Research 34, 3-17.
- [13] Curkovic, S. & Ickery, C. (2000). Quality-related action programmes: Their impact on quality performance and firm performance Decision Sciences, 31 (4), 885-905.
- [14] Daka, H. (2019). Perspectives on Course Management, Teaching and Assessment of Undergraduate Programmes at the Medical School of the University of Zambia, PhD Thesis. University of Zambia.
- [15] Daka, H., Sekelani, S. S. & Namafe, C. M. (2017). Course management, Teaching and Assessing Undergraduates at the Medical School of the University of Zambia. *International Journal of Humanities Social Sciences and Education.* 4 (10), 10-18.
- [16] DeFreitas, S. C. (2011). Differences between African American and European American first-year college students in the relationship between self-efficacy, outcome expectations, and academic achievement. *Social Psychology of Education*, 15(1), 109-123.
- [17] De Remer, M. (2002). *The adult student attrition decision process (ASADP) model.(Doctoral dissertation,* The University of Texas at Austin).
- [18] Diseth, Å. (2007). Approaches to learning, course experience and examination grade among undergraduate psychology students: testing of mediator effects and construct validity. *Studies in Higher Education*, 32(3), 373-388.

- [19] Dockter, M. (2001). An analysis of physical therapy preadmission factors on academic success and success on the national licensing examination. *Journal of Physical Therapy Education* 15(1): 60-64.
- [20] Douglas, T. J. & Fredendall, L. D. (2004), Evaluating the Deming Management Model of Total Quality in Services. *Decision Sciences*, 35: 393–422.
- [21] Farmer, E. A. (2004). Faculty development for problem- based learning. *European Journal of Dental Education*, 8(2), 59-66.
- [22] Feller, I. (2006) 'Assessing Quality: Multiple Actors, Multiple Settings, Multiple Criteria: Issues in Assessing Interdisciplinary Research'. *Research Evaluation 15*(1) 5-15.
- [23] Fredricks, J. & Eccles, J. (2006). Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology*, 42 (4), 698-713.
- [24] Grant, J. (2012). Quality assurance systems for medical education. London, Kogan Page Ltd.
- [25] Hamshire, C., Barrett, N., Langan, M., Harris, E., & Wibberley, C. (2017). Students' perceptions of their learning experiences: A repeat regional survey of healthcare students. *Nurse education today*, 49, 168-173.
- [26] Jacobs, L. (2011) Research Approaches in Education. Matrx Productions, New York.
- [27] James, D. & Chilvers, C. (2001). Academic and non-academic predictors of success on the Nottin undergraduate medical course 1970-1995. *Medical Education35: 1056-1064*.
- [28] Jones, R. (2008). *Student retention and success: A synthesis of research*. Retrieved from Higher Education Academy.
- [29] Joshi, J. (2012). Quality Education Provision. Paris: UNESCO.
- [30] Kane, T. J., Rockoff, J. E., & Staiger, D. O. (2006). What does certification tell us about teacher effectiveness? Evidence from New York City (Working Paper 12155). Cambridge, MA: National Bureau of Economic Research.
- [31] Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, 21 (4), 405-435.
- [32] Kuhn, T.S. (2006). The essential tension: Selected studies in scientific tradition and change. In B. R. Johnson & Onwuegbuzie, A.J. (2004). Mixed Method Research: A Research Paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- [33] Lawrence-Brown, D. (2004). Differentiated instruction: Inclusive strategies for standards-based learning that benefit the whole class. *American secondary education*, 34-62.
- [34] Lazzio, A. (2010). Perceptions of the Learning Environment and Academic outcomes. New York: SRHE.
- [35] Levine, A. (2006). Educating school teachers. Washington, DC: The Education Schools Project.
- [36] Luangala, J. R. and Mulenga, I. M. (2011). *Cultivation of Thinking Skills through Instructional Procedures in Zambian Basic Schools*. London: Lambert Academic Publishing.
- [37] Mashaba, G. & Mhlongo, T. (2003). Student nurse wastage: A case study of the profile and perceptions of students of an institution. *Journal of Advanced Nursing22: 364-373*.
- [38] Massy, W. F. (2014). Teaching and Learning Quality-process Review. California, NCPI.
- [39] McAlpine, M, (2002). Principles of Assessment, University of Glasgow, ISBN 1-904020-01-1.
- [40] Moore, C. & Shurock, N. (2006) A strengthened community college role in teacher preparation: Improving outcomes for California: California: California University Press.
- [41] Mukuka-Hagane, M., Daka H., Msango H. J., Mwelwa K and Kakupa p. (2019). Formative Assessment as a means of Improving Learner Achievement: Lessons from selected Primary Schools of Lusaka Zambia. *Journal of Lexicography and Terminology*, *3* (1), *33 54*.
- [42] Mulenga, I. M. & Luangala, J. R. (2015). Curriculum Design in Contemporary Teacher Education: What Makes Job Analysis a Vital Preliminary Ingredient?*International Journal of Humanities Social Sciences and Education*, 2(1), 39-51.
- [43] Osborne, M. (2013). Modern learning Environments. London: Routledge.
- [44] Ozga,J. (2007). 'Co production of Quality in the Applied Education Research Scheme'. *Research Papers in Education*, 22(2), 69-81.
- [45] Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students*. Vol. 2: A third decade of research. San Francisco: Jossey-Bass.
- [46] Pokorny, H., & Warren, D. (Eds.). (2016). Enhancing teaching practice in higher education. Sage.
- [47] Puntambekar, S., & Hubscher, R. (2005). Tools for scaffolding students in a complex learning environment: What have we gained and what have we missed? *Educational psychologist*, 40(1), 1-12.
- [48] Reason, R. D., (2009). First things first: Developing academic competence in the first year of college. *Research in Higher Education*, 47, 149-175.

- [49] Roehrig, S. (1990). Prediction of student problems in a baccalaureate physical therapy programme. *Journal of Physical Therapy Education*, 4(1), 26-30.
- [50] Roofe, C. G. and Miller, (2013). "Miss, I am not being fully prepared": Student Teachers' Concerns about their Preparation at a Teacher Training Institution in Jamaica. *Australian Journal of Teacher Education.* (38)5, 1-19.
- [51] Sallis, E. (2014). Total quality management in education. Square Milton Park: Routledge.
- [52] Sampson, D. & Karagiannidis, C. (2010). Personalised learning: Educational, technological and standardisation perspective. *Interactive educational multimedia*, (4), 24-39.
- [53] Schindler, L., Puls-Elvidge, S., Welzant, H., & Crawford, L. (2015). Definitions of quality in higher education: A synthesis of the literature. *Higher Learning Research Communications*, 5(3), 3.
- [54] Schreier, M. (2012). Qualitative content analysis in practice. London: Sage.
- [55] Schunk, D. H. (2005). Self-regulated learning: The educational legacy of Paul R. Pintrich. *Educational Psychologist*, 40, 85-94.
- [56] Shelton, E. (2003). Faculty support and student retention. Journal of Nursing Education. 42 (2), 68-76.
- [57] Smith, M. (2009). Using high-fidelity simulation to educate nursing students about end-of-life care. *Nursing Education Perspectives*, 30(2), 115-120.
- [58] Sulaiman, A. & Mohezar, S. (2006). Student Success Factors: *Identifying Key Predictors*. v81 n6 p328-333 Jul-Aug 2006.
- [59] Susan M., David, A. W., & Deborah, L. F. (2011). Using Student and Institutional Characteristics to Predict Graduation Rates at Community Colleges: *New Developments in Performance Measures and Institutional Effectiveness* (35), 802-816.
- [60] Templeton, M., &Burcham, A. (1994). Predictive study of physical therapy admission variables. *Journal* of Allied Health 23, 79-87.
- [61] Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.
- [62] Tyler-Smith, K. (2010). Early Attrition among First Time e Learners: A Review of Factors that Contribute to Drop-out, Withdrawal and Non-Completion Rates of Adult Learners undertaking eLearning Programmes. Christchurch: Christchurch Polytechnic Institute of Technology.
- [63] Ulug, M., Ozden, M.S. & Eryilmaz, A. (2011). The effects of teachers' attitudes on students' personality and performance, *Social and Behavioural Sciences* (30), 738-742, Istanbul: Elservier Ltd.
- [64] UNICEF. (2000). Defining Quality in Education. New York: UNICEF.
- [65] Watson, C., and Barnes, C. (2000). Determinants of clinical performance in a physical therapy programme. *Journal of Allied Health* 29: 150-156.
- [66] Weddle, D., Himburg, S.P., Collins, N. & Lewis, R. (2002). The professional development portfolio process: Setting goals for credentialing. *Journal of the American Dietetic Association*, *102*(10), *1439-1444*.
- [67] Wilson, N. (2009). Impact of Extracurricular Activities on Students. Unpublished PhD Dissertation. University of Wisconsin Stout, Menomoine WII.
- [68] Wilson, S. (Ed). (2015). *Teacher quality (Education Policy White Paper)*. Washington, DC: National Academy of Education.
- [69] Wolters, C. A. (2003). Regulation of motivation: Evaluating an underemphasized aspect of self-regulated learning. *Educational Psychologist*, 38(4), 189-205.
- [70] Yates, J. et al., (2012). When did they leave, and why? A retrospective case study of attrition on the Nottingham undergraduate medical course. *BMC Med Educ.*; 12:43.
- [71] Zimmerman, C. M. (2011). Does learning with high-fidelity human patient simulation (HFHPS) in nursing school impact career retention in the nursing profession during the first two years of licensure? Kansas City: Missouri.

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