
SCALABILITY OF LEARNERS' SUCCESS RATES IN E-LEARNING: A SURVEY STUDY OF THE LEARNERS' PERSPECTIVES

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Abstract

Globally, ODL institutions experience mismatch between scalability of numbers and scalability of success rates. This study explored the scalability of success rates in open, distance e-learning as perceived by the learners within the *Chain of Response Model*. The primary aim of the study was to look at online learners' success rate by focusing on two institutional factors drawn from the Model, namely: the learner's study modules related challenges and support services. The results of an online survey of 180 undergraduate and postgraduate online learners of Egerton University, Kenya, showed: (a) the response rate of 16%; (b) a mixture of hardware, software and personal factors were identified as pre-requisites for e-learning success; (c) a number of mathematically-based modules were identified as risks to success in online studies; and (d) while the learners saw the learner support services as important they were less satisfied with their provision. The present study points to two broad areas that require further studies. First, qualitative look into specific challenges that learners face with respect to learner support service provisions, modules interactivity, and those identified as difficult to follow and thus posing risks to the learners' success. Second, investigation into tutor-learner contacts with the view of identifying whether such contacts are reactive or proactive.

Abstract in French

À l'échelle mondiale, les établissements de FOAD sont confrontés à une inadéquation entre l'évolutivité des chiffres et l'évolutivité des taux de réussite. Cette étude a exploré, dans le modèle de la chaîne de réponse (*Chain of Response Model*), l'évolutivité des taux de réussite dans l'apprentissage électronique à distance tel que perçu par les apprenants. L'objectif principal de l'étude était d'examiner la perception du taux de réussite des apprenants en ligne en se concentrant sur deux facteurs institutionnels tirés du Modèle, à savoir: les modules d'étude de l'apprenant et les services de soutien connexes. Les résultats d'un sondage en ligne mené auprès de 180 apprenants en ligne de premier et deuxième cycles de l'Université Egerton, au Kenya, ont montré: (a) que le taux de réponse était de 16%; (b) une combinaison de facteurs matériels, logiciels et personnels a été identifiée comme pré-requis pour le succès de l'apprentissage en ligne; (c) un certain nombre de modules mathématiques ont été identifiés comme des risques de réussite aux études en ligne; et (d) si les apprenants considéraient les services de soutien aux apprenants comme importants, ils étaient moins satisfaits de leur prestation. La présente étude met en évidence deux grands domaines qui nécessitent des études plus approfondies. En premier lieu, il faudrait examiner de manière qualitative les défis spécifiques auxquels les apprenants sont confrontés en ce qui concerne les services de soutien aux apprenants, l'interactivité des modules et ceux identifiés comme difficiles à suivre, ce qui représente un risque pour la réussite des apprenants. Deuxièmement, une enquête sur les contacts tuteur-apprenant en vue de déterminer si ces contacts sont réactifs ou proactifs s'avère pertinente.

Keywords: Open and distance learning, online learning, scalability, e-learning, success rate, support elements.

Introduction

Globally, throughput rate which is a direct measure of a quantitative performance outcome of an institution is a major challenge for open and distance learning institutions (Parker, 1995; Perraton, 2007; Simpson, 2013). Simpson (2013) describes to this situation as “distance education deficit”. Open and distance learning institutions have been established to address the shortfalls of the conventional institutions with respect to the democratisation of education—the provision of “education to as many people as possible regardless of their inherent differences” (Latif, Sungsi, & Bahroom, 2006; p.2). According to Henderikx (1999; p.30), the British Open University was established with the aim of “democratization of higher education giving a second chance to adult students who did not get an academic degree for various reasons”. There are numerous endogenous and exogenous factors that influence the students' success rates in open and distance learning. Some prior research indicates that while the open universities have significantly scaled up access to higher education, the completion rate is relatively low in comparison with traditional universities (Daniel, 1997; Tresman, 2002; Perraton, 2007; Simpson, 2013). It is therefore evident that while the scalability of numbers has been achieved, the scalability of success rates is yet to be achieved and hence the mismatch is a worry from an investment and reputation perspective. According to Alexander (2001; p.240) e-learning has the potential to: “improve the quality of learning; improve access to education and training; reduce the cost of education, and improve the cost-effectiveness of education”. In this context, one element of cost-effectiveness of education is the achievement of high success rate.

Cross (1981) developed *Chain of Response Model* as a theoretical framework for explaining the learners' barriers to participation in tertiary education. This framework classifies learners' barriers as situational, institutional and dispositional. Garland (1993) expanded on the *Chain of Response Model* proposed by Cross (1981) from a three-barrier structure to a four-barrier structure by including one additional barrier, the epistemological barrier. In summary, in this context, Garland's (1993) categorization of barriers that scale down learners' success rate are: situational, dispositional, institutional and epistemological. Within the Cross's and Garland's classification framework, these factors include *inter alia*: technological enhancement, learning support services, demographic profile, institutional framework, pressure group and success measures. Given the interactive nature of these factors it is difficult to determine a single causal explanation for scaling up success or decreasing attrition rate in ODL (Latif, Sungsi, & Bahroom, 2006). Despite this challenge the mandate of ODL institutions remains that of massification of education and hence the need to pay special attention to scalability of success rate of learners through identification of interventions that can be put in place. The implications of scaling success rates include: timely enhancement and production of human capacity for national wealth creation; enhancing the reputation of ODL institutions; reducing the cost of education and training; increasing the revenue base of the institution as more students are attracted by the success rate; and increasing the learners' market opportunities for promotion and mobility (World Bank, 2000a; 2000b; Alexander, 2001; Olakulehin, 2008).

Technological Enhancement

Throughout its development ODL has made use of various technologies to enhance the learners' success in their studies. At one point in time print technology was the only mode of delivery of ODL (Henderikx, 1999; Ortner, 1999; Heydenrych & Prinsloo, 2010) and with advances in technology, combination of technologies can now support learning in any location leading to a situation that has been referred to as *a* learning-anytime, anyplace and anywhere learning (Khan, 2000). The challenges of loneliness and isolation of ODL learners is now being addressed by e-learning platforms such as Learning Management System (LMS) or Sakai and mobile phone devices. These technologies are enhancing tutor-learner and learner-learner interactions and

consequently the success rate of the learners. These experiences remove isolation challenges. In this regard, e-learning has been seen as a panacea for bridging transactional distance. However, the use of technology and in particular e-learning to support learning in developing nations has encountered barriers that have limited its extensive use and hence the learners' success (World Bank, 2003; Abdon, Ninomiya, & Raab, 2007; Gunga & Ricketts, 2007; Wright, Dhanarajan, & Reju, 2009). These barriers include: power and internet connectivity, telecommunication penetration, cost of hardware and internet access, and human capital for development of online courses. Invariably, evidence also shows that even in developed nations, technology has not in all situations scaled up success rate among the learners. The evidence is a mixture of successes and failures. As observed by Simpson (2003) online learning is not a panacea of scaling up success rate in ODL. A study by Levy (2007; p.185) reported that "students attending e-learning courses dropout at substantially higher rates than their counterparts in on-campus courses". Carr (2000) and Flood (2002) reported that online learning register up to 80% and 70% dropout rate, respectively.

Where high success rate in ODL has been reported, it has been attributed among many other factors to: age of the learner; learner's experience and receptivity to computer use; and the learner's seniority in employment. In these contexts, it has been shown that younger learners perform poorer in ODL mode of study than adult learners; that prior experience with computers and internet and receptivity are positively related to acceptance of an online course; and that those in senior management positions do not want to be seen by the employees as either failures or dropouts (Harris & Gibson, 2006).

Unlike the developed nations, the developing nations are in a unique situation with regards to the use of technology in teaching and learning across all levels of education. While the telecommunication infrastructure has made mobile phone utility possible in many remote parts of Africa, its use in scaling up success rate of ODL learners is yet to be tested. Recent findings indicate that learners' support by mobile phone is possible primarily on administrative and consultation matters (Hendrix, 2008; Maritim & Mushi, 2011). However, the small storage capacity and screen of the mobile phones that are affordable make them ineffective for serious academic work. The larger screen smartphones are as good as laptops but they are expensive for low income distance learners.

Learning Support Services

One of the key pillars of success in distance learning is the learner support services (Hardman & Dunlap, 2003). According to Thorpe (2001) learner support services are those parts of a distance or electronic learning system, which are additional to the provision of course content. Learner support has been placed in three non-exclusive categories, namely: academic support, personal support, and administrative support (Tait, 2000; Thorpe, 2001; Simpson, 2002). These services are important in assisting the learners to overcome barriers to learning, reduce the isolation, facilitate effective learning, reduce attrition rates and scale up their success rates (Nonyongo & Ngengebule, 1998). Simpson (2002) observed that unless the learning support services are appropriate and valued by the learners they will have no impact on improving the learners' success rate. Invariably, Rowley (1996) noted that "successful study can rarely be achieved if other areas of a student's life are unbalanced or causing problems". This observation is supported by Latif, Sungsi, and Bahroom (2006) and Carroll, Ng, and Birch (2009) findings that factors that cause attrition in ODL are mainly situational and dispositional in nature. The support services come in different forms including: counselling and guidance, provision of learning materials such as course outline/modules, provision of tutorial letter/tutorial classes, feedback on assignments, provision of limited face-to-face sessions, consultations online and off-line, computer services, library services, group discussions, family support, peer-group support, time-

off in case of employed learners and administrative (Nonyongo & Ngengebule, 1998; Chua & Lam, 2007; Oosthuizen, Loedolff, & Hamman, 2010). Where these support services are low such as in situations where the learners experience delays in the delivery of study materials and guidelines or lack of proactive contacts with tutors and supervisors, these situations are more likely than the teaching method *per se* to scale down the success rates (Kaye & Rumble, 1991; Carroll, Ng, & Birch, 2009; Bhalalusesa, 2009; Chabaya, Chiome, & Chabaya, 2009; Kamau, 2010; Risenga, 2010). Similarly, studies have shown that only quality services that are appropriate and valued by learners have the potential of scaling up the learners' throughput rates (Simpson, 2002). Indeed, if an ODL institution fails to address the quality of learning support services, it runs the risk of delivering poor education (Chua & Lam, 2007) and scaling down the learners' success rate (Hardman & Dunlap, 2003).

Demographic Profile

Demographic profile represents what Cross (1981) and Garland (1993) referred to as situational and dispositional factors. Most factors that are related to success and failure rate in ODL are situational and dispositional in nature (Calvert, 2006; Latif, Sungsi, & Bahroom, 2006; Carroll et al., 2009) and these are mainly age, experience, job and family demands, motivation, satisfaction, workload, health status, financial pressures and the independent study context. A number of personal issues that have been shown to act as barriers or facilitators to success rate on online learning include: self-discipline (Vaughan & MacVicar, 2004); time for study (Pierrakeas, Xenos, Panagiotakopoulos, & Vergidis, 2004); preparatory training for new learners (Birds & Morgan, 2003); and computer proficiency (Evans & Haase, 2001; Willging & Johnson, 2004).

Measurement Challenges

The measurement of success rates of ODL learners is a contested issue. In a traditional education system completion rate of a cohort of learners is a measure of the success rate and conversely, it is a measure of internal efficiency of an education system or institutional performance (Woodhall, 1985). In this context, high non-completion rate of learners gives a bad reputation to an institution as it is associated with institutional inefficiency and poor performance (Ashby, 2004; Latif, Sungsi, & Bahroom, 2006; Tyler-Smith, 2006). Though teacher education programmes conducted through ODL register high success rate of up to 90% (Perraton, 2007), it is estimated that on the average non-completion rate in ODL institutions is higher than in traditional institutions by between 10% to 20% points (Carr, 2000; Diaz, 2002; Simpson, 2004; 2013; Levy, 2007; Perraton, 2007). It is this low success rate and the long period students take to complete their programmes that have given the impression that ODL institutions are not cost effective when compared with the conventional institutions (Tyler-Smith, 2006; Perraton, 2007). The measure of completion, retention and transition rates in ODL system is confounded by some of the attributes that make it a preferred mode of study. Though flexibility is a highly valued attribute of ODL, it brings in the problem of the measurement of the completion rates. Flexibility masks the provision of clear definition of the learner's year of study and fulltime equivalent student. The concept of "active students", a term popularly used in ODL institutions to refer to the proportion of students who take at least one module in a semester, can neither be used to measure dropout rate nor success rate. A student who may be active in one year may step out of the programme for two years before resuming his/her studies. This intermittent study approach renders measures of ODL success rate rather complicated. The traditional computation of successful completion rates takes into account completion period by members of a cohort who began studying in the same year. In view of ODL flexibility members of a cohort who all began "studying in the same year may graduate between three and ten years later" (Perraton,

2007; p.95). Computation of completion rate is also confounded by under reporting of failure and dropout rates in ODL institutions (Calvert, 2006).

Institutional Framework

There are two primary variants of ODL delivery institutions, namely: the single and dual mode (bimodal) institutions. The All-Africa Ministers' Conference on Open and Distance Education (2004) differentiated the two types of institutions as follows: dual and single mode institutions (SAIDE, 2004). The dual mode institution offers learning opportunities in two modes: one using traditional classroom-based methods, the other using distance methods; the same courses may be offered in both modes, with common examinations, but the two types of learners-on-campus and external-are regarded as distinct. The single-mode institution is an institution that has been set up solely to offer programmes of study, either at a distance, or face-to-face. There has been a debate of whether the type of the ODL institution has differential impact on the students' service delivery. The proponents of dual mode system argue that off-campus students have the advantage of being taught and examined at the same level as conventional students by use of similar instruments by the same tutors. On the contrary, studies show that off-campus learners are given less attention by conventional tutors and that tutors see their participation in off-campus teaching and consultation with learners as part-time activity (Siaciwena, 1983; Maritim, 2009). Similarly, the financing and capacity building of the distance component in dual mode institution is poor as the unit is given peripheral status in the university (Kamau, 1999). However, there are few reported exceptions. Deakin University in Australia is a success story of a dual mode institution (Davies & Stacey, 1998). Investigation into the throughput rate of ODL component in dual mode has not received attention. This is masked by lack of segregation of graduation figures into on-campus and off-campus streams.

Pressure Group

ODL students exercise limited pressure on the management of the institution and hence can be exploited in terms of resource allocation and service provision (Glennie, 2008). Unlike their conventional counterparts, the union of the ODL learners, where available, is structurally weak to tackle administrative weaknesses of the education provider. In view of their spread, physical isolation and their virtual nature they rarely have the structure to organize a strike as a way of registering their grievances or putting pressure on the institutional management for better provision of learner support services.

Statement of the Problem

Despite the national and the institutional challenges identified by Gunga and Ricketts (2007) and Kenya Education Network (2013) a good number of conventional universities in Kenya are now embracing e-learning mode of delivery of their programmes. Globally, online learning is a growing phenomenon that the developing countries cannot afford to ignore how it is transforming higher education landscape. As Betts (2017) puts it, online learning is a "new norm" in higher education. In USA, approximately a quarter of higher education students are taking at least one online course (Smith, 2016). In the Kenyan situation, the mainstreaming of e-learning in higher education is driven by a number of factors including *inter alia*; government policy to expand ODL in existing universities by leveraging on ICT, the technological advances, inefficiency and high cost of print-based delivery system, and the need for the University to offer courses across the border; e-learning being seen as a potential source of revenue generation; and the anticipated cost effectiveness if the numbers can be scaled up. However, the major challenges these dual mode institutions face include *inter alia*: their low level of e-readiness (Kenya Education Network, 2013) and their component of learner support services suffer like in other

developing countries from tutors' duality of assignments through engagement in both conventional and e-learning streams (Kamau, 1999; Maritim, 2009).

While many higher education institutions in Kenya, including Egerton University, are moving towards being dual mode institutions and want to embrace technology-mediated learning, one question that arises is the degree to which these institutions are balancing their ambition of scaling up the student numbers in order to raise higher revenue with the learners' satisfaction of the support services. However, one needs to see institutional desire for scalability of numbers through e-learning in relation to learner support services. While looking at quality assurance on online learning, Chua and Lam (2007; p.151) observed that "one of the purported benefits of online education is the ability to scale beyond the limitations inherent in a brick-and-mortar institution.... and there is a need to conduct research into how online educational modes can be made to scale successfully without compromising the quality of the educational experience". Hardman and Dunlap (2003) add that the major challenge to online education providers is not so much how to recruit students but how to retain them once they have begun.

Purpose of Study

During 2014/2015 academic year, Egerton University ventured into e-learning mode of delivery.

This study focuses on online learning support services as experienced by the learners. It interrogates scalability of success rates from the learners' perspective. The main objective of the study is therefore to contribute to identification of support elements that scale up the success rate in a dual mode institution as perceived by the learners. The specific objective is to examine the learners' perception of the importance and satisfaction with support elements and the study modules provided for their online learning. This objective is based on the assumption that when students are satisfied with their online courses, their success and retention rate in the course is high (Palloff & Pratt, 2007).

Methods

Subjects

The subjects that constituted the study population were all 180 active learners who were enrolled in online undergraduate and postgraduate programmes of Egerton University, Kenya, during the first semester of 2015/2016 academic year. Twenty-three were men and five (18%) were women. Their ages ranged from 21 to over 40 years, with 61% above 31 years old.

Materials

The whole instruments had both open and structured questions that covered: the demographic questions; preference for ODeL questions; modules perceived as high risk, and questions focusing on the perceived level of importance and satisfaction with support services. The demographic questions included those that have been used in previous ODL research. There are age and gender (Simpson, 2006; Sharma & Samdup, 2009; Gonzalez-Gomez, Guardiola, Rodriguez, & Alonzo, 2011). On a 5-point Likert scale, adopted from Rekkedal and Eriksen (2004) instrument, the respondents rated each of the 13 support elements on the degree of their perceived importance and satisfaction in enhancing their online learning success.

Procedure

All participants completed an online questionnaire on a voluntary basis. They were informed about the purpose and procedure employed in the study and the responses were de-identified. The descriptive analyses and correlations of research variables were generated. The google form

in which the data was collected has an in-built statistical package that generates various descriptive statistics. The Pearson correlation coefficient was computed through excel programme.

Results

The descriptive analyses and the correlations show the following scenarios:

Demographic Profile

There was a male dominance among the respondents, 82% and 18%, males and females, respectively, and most of the respondents, 61%, were over the age of 31 years. A recent survey shows that approximately 56 million students who study through online mode female make up 56% (OnlineUniversities.com).

Response Rate

The response rate received from the sample was 16%. This rate is lower than what has been reported in the literature of between 20% and 40%, an average of 30%, for online surveys. This low response rate may be attributed to non-repeat reminder e-mails to non-respondents and small sample size (Nully, 2008).

Online Preference

The reasons given by respondents for preferring to pursue online learning varied and included: work commitment/engagement; convenience; flexibility; light duty in workplace; distance from town/university; further education; and cost. Similar factors have been reported in other studies (Hardman & Dunlap, 2003). The reasons given give a clear indication to e-learning providers that online learners are looking for convenience and flexibility in their studies.

Online Learning Pre-requisites

Pre-requisites are measures of the learner's readiness for online learning. As an assisted-technology learning, e-learning puts some demands on the learner. The success behind e-learning is anchored on the ability of the learner to navigate through a learning platform, the Learning Management System. This therefore calls upon the learner to acquire certain pre-requisites or being in an environment that is technologically enhanced. This survey indicated that for an online learner to succeed he/she needs to have: computer literacy; possession of laptop/computer; availability of internet/connectivity; time management; self-discipline; power connectivity; Internet reliability; discussion groups; quick response from e-learning tutors; and administration's response towards students' grievances.

These are a mixture of hardware, software and human factors. The human factors touch on learner support services. The pre-conditions for success on online environment identified in this study support earlier studies that recognize the importance of pre-course start information for online studies and personal issues (Vaughan & MacVicar, 2004; Pierrakoes & Johnson, 2004; Willging & Johnson, 2004; Dupin-Bryant, 2004; Simpson, 2006; Maritim, 2009).

Difficult Modules

Though modules are developed with the learners' profile being taken into consideration and are pretested before release for use by learners, e-learning is still at infancy stage at Egerton University and the module developers have not acquired adequate experience. Any difficulty a learner encounters poses a potential risk of failure to complete the course. The modules that the learners found difficult to follow and hence pose potential for failure are: Business

Mathematics 1; Introduction to Computers and Computer Applications; Philosophy and Society; Principles of Micro-economics; Academic Communication Skills; Management Mathematics and Principles of Accounting II. The reasons for these courses being considered risky by the learners were not investigated.

Online Risks

Provision of online learning has its unique risks. These include poor financing of online unit and tutors' duality of roles (Kamau; 1999; Maritim, 2009). These risks affect the quality of learner support service provision. In this study, respondents identified the following as prevalent risks in their studies: time for library; working on practical; support and resources needed; networking; missing information when offline; too much assignments; lack of student-institution communication; lack of Internet/Wifi connectivity; late registration hence late receipt of modules; speed of response to students issues/academic queries from tutors; pressure of work leading to: limited study time and limited time off for seminars; failure to access tutors and unfavourable mode of assessment.

Some of these risks have been reported in other studies (Olibie, Offor, & Onyebuchi, 2016). The major risks echoed by the learners point to five things: First, to what Gunga and Ricketts (2007) identified as the drawbacks in e-learning in African universities, namely: power and internet connectivity. This affect learners in locations which are technologically disadvantaged. Second, concern raises the need for e-assessment. Lack of e-assessment is a major risk and barrier to expansion of e-learning across the borders. Currently all online students are required to present themselves physically at the University campuses for final assessment. The third risk arises from support service provision where tutors have low interactions with their students. This is a prevalent risk in dual mode institutions where tutors experience duality of roles and hence take online role as a part-time assignment. Fourth, the need for virtual laboratory for the demonstration of practically-related learning is an added value to online delivery. Fifth, the low level of networking among the learners seems to exist. This suggests that learners are not having an opportunity to support each other. Learners' networking in ODL is a key success element and hence warrants attention.

Support Elements

Support elements enhance the learners' satisfaction with the course, a factor that is crucial to online learners' retention (Levy, 2004). The means and standard deviations for learners' importance and satisfaction ratings for each support element are presented in Table 1. As per the Likert scale administered, the lower the mean the higher the importance and satisfaction of the support elements. For each support element, the learners' means rating is higher on the perception of the support elements as more important than on their satisfaction with their provision.

Table 1: Means and standard deviations for learners' ratings of importance and satisfaction with support elements

Support Element	Importance		Satisfaction	
	Mean	S.D	Mean	S.D
1 Bridging courses for underprepared learners	1.74	0.94	2.15	0.93
2 Provision of feedback on issues raised by learners	1.14	0.44	2.43	1.17
3 CAT content coverage in relation to final examination	1.44	0.64	1.92	0.88
4 Library resources supplementing study modules	1.21	0.41	2.24	1.21
5 Accessibility of online links provided in study modules	1.34	0.55	2.29	1.04
6 Clarity of writing style of the study modules	1.37	0.61	1.93	0.70
7 Sequencing of topics in the study modules	1.21	0.48	1.90	0.77
8 Participation on online chats	1.73	1.08	2.75	1.10
9 Organization of online discussion fora	1.82	1.09	2.86	1.20
10 Self-assessment provided in the study modules	1.69	1.07	2.14	1.04
11 Accessibility of tutors for study related problems	1.25	0.43	2.54	1.31
12 Induction course regarding online learning techniques	1.44	0.64	1.85	0.76
13 Online student-student interactions	1.67	0.88	2.17	0.94

The mean scores expressed in Table 1 show the support element of discussion, online chats and accessibility to tutors as being low on satisfaction dimension. These are the core pillars on online success and yet the tutors appear least concerned. These support elements provide social contacts that are the recipes for successful completion of an online programme. Studies have shown that success and retention in online learning is enhanced by human contacts (Palloff & Pratt, 2007). This implies in the case of this study the need for the considerations of maximizing in the course of learning both synchronous and asynchronous communications. The utility of both the chats and discussion fora is provided in the LMS. If tutors use LMS chats provision, they are able to satisfy the learners' desire for enhancing synchronous or tutor-learner real-time interactions. Further, as value addition, human contacts can be enhanced by the providing or adding visual and audio files to an asynchronous online study module. This makes a virtual classroom to mirror a conventional classroom where a learner sees and hears the teacher.

The correlation between mean importance and mean satisfaction is depicted in Figure 1. This correlation of $r = .32$ is lower than the r of $.83$ found by Mitra (2009) in a study among the Open Schooling learners in India. This finding ($r = .32$) suggests that while the online learners saw the identified support elements as important for their learning success they were less happy with their provision.

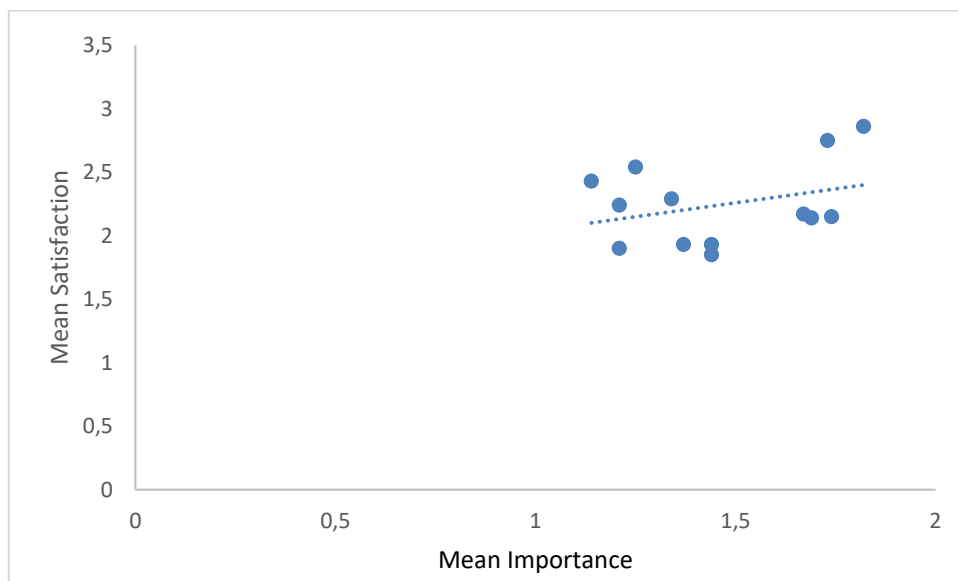


Figure 1. Pearson correlation between mean importance and mean satisfaction support elements

Conclusion and Further Research

While the utility of e-learning in higher education is a *new norm* (Betts, 2017), its full benefits to learners is yet to be realized. Higher education institutions in developing countries are too futuristic when embracing e-learning. The environment where e-learning is being offered has its uniqueness. This include: inexperience tutors involved in the provision of learners support services; and the institutional and the learner's readiness for the *new norm*. The present study points to two broad areas that require further studies. First, qualitative look into specific challenges that learners face with respect to learner support service provisions, modules interactivity, and those identified as difficult to follow and thus posing risks to the learners' success. Second, look into tutor-learner contacts with the view of identifying whether the contacts are reactive or proactive and the need to address low tutor-learner interactions.

References

1. Abdon, B. R., Ninomiya, S., & Raab, R. T. (2007). E-learning in higher education makes its debut in Cambodia: The Provisional Business Education Project. *International Review of Research in Open and Distance Learning*, 8(1), 1-11.
2. Alexander, S. (2001). E-learning developments and experiences. *Education & Training*, 43(4/5), 240-248.
3. Asbee, S., & Simpson, O. (1998). Partners, families and friends: Student support of the closest kind. *Open Learning*, 13(5), 56-59.
4. Ashby, A. (2004). Monitoring student retention in the Open University: Definition, measurement, interpretation and action. *Open Learning*, 19(1), 65-77.
5. Barefoot, B. O. (2004). Higher education's revolving door: confronting the problem of student drop out in US colleges and universities. *Open Learning*, 19(1), 9-18.
6. Berge, Z. L., & Huang, Y. (2004). A model for sustainable student retention: A holistic perspective on the student dropout problem with special attention to e-learning. *DEOSNEWS*, 13(5).
7. Betts, K. (2017, January 10). The growth of online learning: How Universities must adjust to the new norm. EducationDIVE [Blog post]. Retrieved from

<https://www.educationdive.com/news/the-growth-of-online-learning-how-universities-must-adjust-to-the-new-norm/433632/>

8. Bhalalusesa, E. P. (2006). The dynamics of teaching at a distance in Tanzania: Reflections from the field. *Open Learning*, 2(1), 49-58.
9. Bird, J., & Morgan, C. (2003). Adults contemplating university study at a distance: Issues, themes and concerns. *International Review of Research in Open and Distance Learning*, 4(1).
10. Carr, S. (2000, July 07). Many professors are optimistic on distance learning survey finds. The Chronicle of Higher Education [Blog post]. Retrieved from <https://www.chronicle.com/article/Many-Professors-Are-Optimistic/15541>
11. Carr, S. (2000, February 11). As distance education comes of age, the challenge is keeping the students. The Chronicle of Higher Education [Blog post]. Retrieved from <https://www.chronicle.com/article/As-Distance-Education-Comes-of/14334>.
12. Carroll, D., Ng, E., & Birch, D. (2009). Retention and progression of postgraduate business students: An Australian perspective. *The Journal of Open and Distance Learning*, 24(3), 197-209.
13. Chua, A., & Lam, W. (2007). Quality assurance in online education: The Universitas 21 Global approach. *British Journal of Educational Technology*, 38(1), 133-152.
14. Cross, K. P. (1981). *Adults as learners: Increasing participation and facilitating learning*. San Francisco: Jossey-Bass.
15. Daniel, J. S. (1997). Why universities need technology strategies. *Change: The Magazine of Higher Learning*, 29(4), 10-17.
16. Davies, G., & Stacey, E. (1998). *Virtual universities: are dual mode universities the solution?* Paper presented at the FIE '98. 28th Annual Conference – Frontiers in Education Conference, 4-7 November, 1998, Tempe, AZ, USA. Retrieved from <http://ieeexplore.ieee.org/document/738776/>
17. Desjardins, R., Garrouste-Norelius, C., & Mendes, S. (2004). *Benchmarking education and training systems in Europe: An international comparative study*. Stockholm, Institute of International Education, Stockholm University.
18. Diaz, D. P. (2002). Online drop rates revisited. *The Technology Source Archive*, 2002(May/June). Retrieved from http://www.technologysource.org/article/online_drop_rates_revisited/
19. Dupin-Bryant, P. A. (2004). Pre-entry variables related to retention in online distance education. *American Journal of Distance Education*, 18(4), 199-206.
20. Evans, J. R., & Haase, I. M. (2001). Online business education in the twenty-first-century: An analysis of potential target markets. *Internet Research: New working Applications and Policy*, 11(93), 246-260.
21. Flood, J. (2002). Read all about it: Online learning facing 80% attrition rates. *TOJDE – Turkish Online Journal of Education*, 3(2).
22. Garland, M. R. (1993). Student perceptions of the situational, institutional, dispositional and epistemological barriers to persistence. *Distance Education*, 14(2), 181-198.
23. Glennie, J. (2008). *A Critical Overview of Quality Assurance and Accreditation Policies, Structures and Practices for ODL in Africa: Gaps, Challenges, and Lessons for the ACDE continental initiative*. Paper presented at the African Council for Distance Education Stakeholders Workshop held at the University of South Africa, Pretoria, February 21-23.
24. Gonzalez-Gomez, F., Guardiola, J., Rodriguez, O. M., & Alonso, M. A. M. (2011). Gender differences in e-learning satisfaction. *Computer & Education*, 58, 283-290.

25. Gunga, S. O., & Ricketts, I. W. (2007). Facing the challenges of e-learning initiatives in African universities. *British Journal of Educational Technology*, 38(5), 896-906.
26. Hardman, L., & Dunlap, J. C. (2003). Learner support services for online students: Scaffolding for success. *The International Review of Research in Open and Distributed Learning*, 4(1).
27. Harris, M. L., & Gibson, S. G. (2006). Distance education vs face-to-face classes: Individual differences, course preferences and enrollment. *Psychological Reports*, 98, 756-764.
28. Heydenrych, J. F., & Prinsloo, P. (2010). Revisiting the five generations of distance education: Quo vadis? *Progressio: South African Journal for Open and Distance Learning Practice*, 32(1), 5-26.
29. Henderikx, P. (1999). On the way to Virtual Universities: Open and distance higher education in Europe. In G. E. Ortner & F. Nickolmann (Eds.), *Socio-Economics of Virtual Universities* (pp. 29-51). Weinheim: Druck Partner Rubelmann.
30. Kamau, J. W. (1999). *Challenges of course development and implementation in dual mode institutions*. Paper presented as a case study at the Pan Commonwealth Forum on Open Learning, 1-5 March 1999, University of Brunei, Darussalam Brunei. Retrieved from http://colfinder.net/materials/Supporting_Distance_Education_Through_Policy_Development/resources/worldbank/Management/Operations/m25abot.htm
31. Kamau, J. W. (2010). Factors that affect the progress and retention of distance learners in the Diploma in Primary Education Programme in Botswana. *Progressio: South African Journal for Open and Distance Learning Practice*, 32(2), 164-180.
32. Kaye, T., & Rumble, G. (1991). Open universities: A comparative approach. *Prospects*, 21(2), 214-226.
33. Khan, B. H. (2000). A framework for e-learning. *Distance Education Report*, 4(24), 3-8.
34. Kenya Education Network (2013). *The e-readiness survey of Kenyan universities*. Nairobi: Author.
35. Kolowich, S. (2014, January 15). Doubts about MOOCs continues to rise, survey finds. *The Chronicle of Higher Education* [Blog post]. Retrieved from <https://www.chronicle.com/article/Doubts-About-MOOCs-Continue-to/144007/>.
36. Larner, M. (2009). Where's Walter? Adjunct outreach strategies to bridge the virtual distance and increase student retention. *Online Journal of Distance Learning Administration*, 12(2).
37. Latif, A. L., Sungsi, S., & Bahroom, R. (2006). Managing retention in ODL institutions: A case of Open University Malaysia and Sukhothai Thammathirat Open University. *ASEAN Journal of Open Distance Learning*, 1(1).
38. Lauerma, J. (2014, January 21). Harvard, MIT Online courses dropped by 95% of registrars. *Bloomberg Technology* [Blog post]. Retrieved from <https://www.bloomberg.com/news/articles/2014-01-21/harvard-online-courses-dropped-by-95-of-registered-study-says>
39. Levy, Y. (2007). Comparing dropouts and persistence in e-learning courses. *Computers & Education*, 48(2), 185-204.
40. Maritim, E. K. (2009). The distance learning mode of training teachers in Kenya: Challenges, prospects, and suggested policy framework. *The Journal of Open and Distance Learning*, 24(3), 241-254.
41. Maritim, E. K., & Mushi, H. M. K. (2011). Mobile technologies for enhancing distance learning in Tanzania: An exploratory study. *West African Journal of Open and Flexible Learning*, 1(1), 91-110.
42. McGivney, V. (2004). Understanding persistence in adult learning. *Open Learning*, 19(1), 33-46.

43. Mitra, S. (2009). Student support services in open schooling: A case study of students' needs and satisfaction in India. *Open Learning*, 24(3), 255-265.
44. Morgan, C., & Tam, M. (1999). Unraveling the complexities of distance education student attrition. *Distance Education*, 20(1), 96-108.
45. Nichols, M. (2010). Student perceptions of support service and the influence of targeted interventions on retention in distance learning. *Distance Education*, 31(1), 93-113.
46. Nonyongo, E. P., & Ngengebule, A. T. (1998). *Learner support services: Case studies of DEASA member institutions*. Pretoria: University of South Africa.
47. Nully, D. D. (2008). The adequacy of response rates to online and paper surveys: what can be done? *Assessment and Evaluation in Higher Education*, 33, 301-314.
48. Olakulehin, F. K. (2008). Open and distance education as a strategy for human capital development in Nigeria. *Open Learning*, 23(2), 123-130.
49. Oosthuizen, A. G., Loedolff, P. v. Z., & Hamman, F. (2010). Students' perceptions of the quality of learner support in ODL. *Progressio: South African Journal for Open and Distance Learning Practice*, 32(1), 185-205.
50. OnlineUniversities.com (2018). Investigating the online study body. Retrieved from <http://www.onlineuniversities.com/articles/educators/investigating-the-online-student-body/>
51. Olibie, E. I., Offor, U. I., & Onyebuchi, C. G. (2016). A tale of two cities: Hindrances to distance learning programmes in Ikwa and Nnewi cities in Anambra State of Nigeria. *Journal of Open Education and E-Learning Studies*, 1(1).
52. Ortner, G. E. (1999). Socio-economics of virtual universities: Introduction and summary. In G. E. Ortner & F. Nickolmann (Eds.), *Socio-Economics of Virtual Universities* (pp. 9-28). Weinheim: Druck Partner Rubelmann.
53. Palloff, R. M., & Pratt, K. (2007). *Building online learning communities: Effective strategies for virtual classroom*. San Francisco, CA: Jossey-Boss.
54. Parker, A. (1995). Distance education attrition. *International Journal of Educational Telecommunications*, 1(4), 389-406.
55. Perraton, H. (2007). *Open and distance learning in the developing world*. London: Routledge.
56. Pierrakeas, C., Xenos, M., Panagiotakopoulos, C., & Vergidis, D. (2004). A comparative study of dropout rates and causes for two different distance education courses. *International Review of Research in Open and Distance Learning*, 5(2).
57. Rekkedal, T., & Eriksen, S. Q. (2004). Support services in e-learning- An evaluation study of students' needs and satisfaction. *European Journal of Open, Distance and E-learning*, 2004(I). Retrieve from http://www.eurodl.org/materials/contrib/2004/Rekkedal_Qvist-Eriksen.pdf
58. Risenga, A. (2010). Attributes of students' success and failure in typical ODL institutions. *Progressio: South African Journal for Open and Distance Learning Practice*, 32(2), 85-101.
59. Rovai, A. P. (2003). In search of higher persistence rates in distance education online programmes. *Internet and Higher Education*, 6, 1-16.
60. Rowley, R. W. (1996). *Student support services. Higher education management: The key elements*. Buckingham: SRHE & Open University.
61. SAIDE (2004). All African Ministers' conference on online and distance education held in Cape Town International Convention Centre, February 2-4, 2004.

62. Schnack, J. (2005, June). University E-learning. J@pan Inc [Blog post]. Retrieved from <http://www.japaninc.com/article.php?articleID=1448>
63. Sharma, R., & Samdup, P. E. (2009). Revisiting gender in open and distance learning-an independent variable or mediated reality? *Open Learning*, 24(2).
64. Siaciwena, R. M. (1983). Problems of managing an external degree programme at the University of Zambia. *Journal of Adult Education*, 2(1), 69-77. University of Zambia.
65. Siemens, G. (2002, August 22). Lessons learned teaching online. elearnspace [Blog post]. Retrieved from <http://www.elearnspace.org/Articles/lessonslearnedteaching.htm>
66. Simpson, O. (2002). *Supporting students in online, open and distance learning* (2nd ed.). Newcastle upon Tyne, UK: Kogan Page.
67. Simpson, O. (2003). *Student retention in online open and distance learning*. Open and flexible learning series. UK: Routledge.
68. Simpson, O. (2004). The impact on retention of interventions to support distance learning students. *Open Learning*, 19(1), 79-95.
69. Simpson, O. (2006). Predicting student success in open and distance learning. *Open Learning*, 21(2), 125-138.
70. Simpson, O. (2013). Student retention in distance education: Are we failing our students? *Open Learning: The Journal of Open, Distance and e-Learning*, 28(2), 105-119.
71. Smith, F. (2016, February 25). Report: One in four students enrolled in online courses. EdTech [Blog post]. Retrieved from <https://edtechmagazine.com/higher/article/2016/02/report-one-four-students-enrolled-online-courses>
72. Thorpe, M. (2001). *Learner support: A new model for online teaching and learning*. Paper to the 20th ICDE World Conference, Dusseldorf.
73. Tresman, S. (2002). Towards a strategy for improving student retention in programs of open, distance education: A case study from the Open University UK. *International Review of Research in Open and Distance Learning*, 3(1), 2-11.
74. Tyler-Smith, K. (2006). 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 e-learning programmes. *MERLOT Journal of Online Learning and Teaching*, 2(2). Retrieved from http://jolt.merlot.org/Vol2_No2_TylerSmith.htm
75. Vaughan, K., & McVicar, A. (2004). Employee' pre-implementation attitudes and perceptions to e-learning: A banking case study analysis. *Journal of European Industrial Training*, 28(5), 400-413.
76. Willging, P. A., & Johnson, S. D. (2004). Factors that influence student decision to drop out of online courses. *Journal of Asynchronous Learning Network*, 8(4), 105-118.
77. World Bank (2000a). *Higher education in developing countries: Peril and promise*. Washington, D.C.: World Bank.
78. World Bank (2000b). *Can Africa claim the 21st century?* Washington, D.C.: World Bank.
79. World Bank (2003). *Lifelong learning in the global knowledge economy: Challenges for developing countries*. Washington, D.C.: World Bank.
80. Wright, C. R., Dhanarajan, G., & Reju, S A. (2009). Recurring issues encountered by distance educators in developing and emerging nations. *The International Review of Research in Open and*

Distance, 10(1). Retrieved from
<http://www.irrodl.org/index.php/irrodl/article/viewArticle/608/1180>