

Drop-out among ODL learners: A case study at the Open University of Mauritius

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Highlights

- This paper depicts the main causes of dropouts at an emerging university, the Open University of Mauritius (OU), and the measures taken to keep its dropout rate low.
- The findings point to the vulnerability of younger learners, especially school leavers, to drop out.
- The major cause of attrition at OU remains the change of personal goal, indicating that with time people reshuffle their list of priorities, embark on new projects and eventually drop out of their studies.
- Of the few take-home messages, the ones that stand out for policy makers are that if ODL is to become the preferred mode on learning, new recruits must be empowered in their new learning environment through induction sessions.

Article Info: Research Article

Keywords: *Attrition, dropout, open and distance learning, retention*

Abstract

Dropout is a global and complex phenomenon affecting all universities. This study aimed at investigating the intrinsic and extrinsic factors causing dropout at the Open University of Mauritius (OU). Secondary data about 1885 learners were collected for five intakes and three levels of study - foundation, undergraduate and Master courses. The dropout rates were 46.08%, 39.14% and 17.31% respectively, showing that those with previous tertiary education were less likely to drop out of studies. Analysis of data from 96 completed questionnaires revealed that female learners were more persistent in their studies while mature students were less likely to drop out from university. Personal and career-related issues were the major causes leading to attrition at OU. Sub causes included wrong choice in programmes, inadequate tutorial support and lack of employer's support. Corrective actions suggested include providing counselling sessions before registration and during studies, implementing strategies to help students develop time management skills, developing courses in line with industry requirements and improving tutor's support. The low attrition rate at OU is probably because most of its learners are working adults who are able to shoulder learning with greater responsibility. This is also because OU has maximised on technology to reach out to learners, hence mitigating isolation.

1. Introduction

The emergence of knowledge societies, globalisation, and the rapid change in technology has radically changed many systems, including the educational system. The twenty first century has been marked by a high number of adult learners who are 'back to school', trying to secure academic qualifications without causing any hindrance to their career/family life (Muljana and Luo, 2019). Open and Distance Learning (ODL) has become yet another way for institutions of higher learning to reach out to learners. This mode of learning is now a much preferred one as it gives people the possibility to work and study at the same time. However, in institutions operating in such mode, the dropout rate tends to be higher compared to the traditional higher education institutions (Xavier and Meneses, 2020). Student attrition or dropout rate is a worldwide phenomenon which is an unavoidable problem that is well settled in all universities, including

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traditional universities. Policy-makers, tertiary institution management and even the business community are working towards developing best practices that would help retain a maximum number of students and thus increase graduation rate.

The Open University of Mauritius (OU), is a newly established institution and is the main open and distance learning provider in Mauritius. As at January 2022, around 8500 learners were enrolled on various courses. However, not all those who start the programme successfully complete it. This research focuses on the reasons of dropout at the Open University of Mauritius.

2. Literature

2.1. What is dropout?

University dropout is a multidimensional phenomenon and the ways dropout has been interpreted in literature also differs. According to Bağriacık and Karataş (2022), the heterogeneous nature of and several definitions of dropout resulted in no consensus on a single definition. These definitions were not consistent with one another, which made it difficult to compare dropout factors, and strategies to mitigate student dropout in ODL universities. However, Lee and Choi (2011) have summarised the different definitions used to describe e-learner unsuccessful completion of their program that include but are not limited to withdrawal, non-completion, dropout, attrition and failing. These definitions have been summarised in Table 1. In a nutshell, the different definitions of dropout range from failure to embark on studies after first registration, to inability to successfully complete the course through withdrawal from the course programme.

After considering the various definitions, the authors decided to retain the one that defines dropout when students have not been able to graduate within the allocated duration of their study program. In this definition, a line is established between those students just taking a break or shift in their study program and those taking such a long pause that they ultimately do not complete their studies.

Table 1. Definitions of Dropout

Author	What the definition encompasses?
Xenos et al (2002)	Who registered but never started their studies
Kemp (2002)	Received an academic failing grade
Moore et al (2003)	Received a grade of F
Pierrakeas et al (2004)	Failed to deliver one project
Morris et al (2005b)	Received a grade of D, F, or an incomplete
Levy (2007)	Who voluntarily withdraw from e-learning
Ivankova and Stick (2007)	Withdrew or were terminated from the programme
Frydeberg (2007)	Dropped prior to start class
Pigliapoco and Bagliolo (2008)	Students who did not renew their enrolment
Perry (2008)	Withdrawal

2.2. Dropout rates in ODL universities

ODL student dropout rates are significantly higher than student dropout rates in conventional face-to-face universities (Alias and Jamaludin, 2005; Palmer, 2005 cited in Fozdar et al. 2006). In the study of Patterson & McFadden (2009), the authors found that student attrition rate was higher in an online master's degree as compared to on-campus formats of the same degree programmes. Other research found that the dropout rate of distance learners exceeds the dropout rate of onsite learners (Nielson, 2013). Likewise, in their study, Alias et al. (2001) reported that online learners showed a dropout rate of 49.7% which was significant when

compared to attrition rates of other conventional learners (cited in Alias and Jamaludin, 2005). Smith (2010) noted that dropout rates among distance learners fluctuate between 40-80%.

Low persistence rates for online courses as opposed to those offered in person have also been noted by Muljana and Luo (2019) and Delnoij et al. (2020). Mishra (2017) pointed out that only 15% of students from Open Universities leave with degrees or other qualifications.

However, it should be highlighted that numerous research conducted on dropout were mostly carried out in specific universities. The dropout phenomenon in ODL is a puzzling and complex issue. Literature review reveals inadequate or lack of empirical information about dropout rates in ODL universities worldwide. Because dropout rates in such institutions are usually high, publishing them can be discouraging for new recruits. Moreover, the lack of statistics on the attrition rates makes it difficult to provide a meaningful and an informed comparison between conventional and ODL universities.

2.3. Reasons behind dropout of students

When it comes to studying dropout at university level, we have to be cautious about the mode of delivery of those respective universities. The research of Bağrıacık and Karataş (2022) pointed out that ODL dropout models are often based on models of face-to-face education. In this respect, the Tinto's model based on traditional face-to-face universities has been commonly used to study dropout factors. According to Tinto's theory, the decision to 'dropout' arises from a combination of student characteristics and the extent of their academic, environmental and social integration in the university community (Tinto, 1975 cited in Aljohani, 2016). The model has been fairly successful in describing the factors that cause students to leave higher education, however, it fails to address the attrition behaviour of ODL learners whose entire experience of higher education is different from that of traditional students (Aljohani, 2016). First of all, among ODL learners, there is high percentage of working adults who have to balance their coursework, job and family responsibilities at the same time (Tladi, 2013; Tat-Sheung and Wong, 2018). Since ODL mode of learning is significantly different from traditional face-to-face learning, many learners may lack self-directed skills and motivation to complete their studies.

Going back to the period prior 2000, there have been a few studies which analysed the incidence of drop out. One of them is the study by Jordan et al. (1994) came up with push and pull dropout factors. Push out is explained when situations within the school environment lead to dropout, such as tests, attendance, discipline policies, and poor behaviour. Pull factors include those inside the student which turn them away from school. These factors can be finance, employment, illness, family, or family changes, such as marriage or childbirth.

Watt and Roessingh (1994) added a third factor called falling out, which occurs when a student does not show significant academic progress in schoolwork and becomes apathetic or even disillusioned with school completion.

Brown (1996) identified ten factors which influence students' decision to discontinue their studies namely:

- (1) Difficulty to contact tutors;
- (2) Insufficient support from tutors;
- (3) Course too time consuming;
- (4) Change of employment;
- (5) Feeling isolated from the college/institution;
- (6) High cost of studying;
- (7) Change in family circumstances;
- (8) More time needed with family;
- (9) Course expectations not met and

(10) Inadequate written materials (cited in Tladi, 2013).

Then came more recent studies that explored those factors and thus developed models. These models incorporated variables that are associated with dropout. For instance, Boyles (2000) developed a model which identified three sets of variables related to perseverance or withdrawal which can be categorised as learner's background, environmental variables and academic variables. Learner's background includes the learner's maturity, personal circumstances and previous experience while environmental variables, include factors such as family, social and work commitments and academic variables comprise learner's previous academic track record and the fit between the learner and the subject being studied.

Berge and Huang (2004) proposed a refinement of Boyles' by grouping the variables into three primary groups:

(1) **personal variables** such as age, ethnicity, gender, income, previous academic experience and personal attributes like self-efficacy for learning, personal organisation and motivation;

(2) **institutional variables** such as institutional attitude, values and beliefs, academic characteristics like structural systems and processes, learner support and degree of congruence between the needs of individual students and the philosophical stance of the institution;

(3) **circumstantial variables** which include the nature and quality of the institution's interaction with the student; academic interactions, course design and facilitation, as well as the interactions that are specific to the learner's life, work, family, responsibility and satisfaction.

These variables being categorised gave a better picture of why dropout occurs and give an understanding of what may be going wrong. As such, other authors build on the previous works to come up with different variables in the context of their study. Research undertaken by Raghavan et al. (2015) emphasised on two types of barriers which lead to dropout: **structural** and **dispositional** deterrents. Structural barriers are of two types, situational and institutional. **Situational** barriers include lack of day care centres for the learners' children, lack of transportation, inadequate family support for learning, health problems, financial or legal difficulties, and personal or family problems, which may not be under their control. **Institutional** barriers are matters such as scheduling of classes, location of study centres, and recognition of the institution at national and international level, course content and tutor behaviour that may discourage participation or retention. **Dispositional** deterrents describe barriers that are within the learner, such as fear of failure, unwillingness to try something new, lack of self-confidence, self-esteem and prior educational experience.

Raghavan et al. (2015) thus concluded that the major factors leading to ODL learner' attrition or inactivity were mainly due to institutional barriers. These barriers include the institution's management of assessment practices, the quality of support services and the ability of the tutors and facilitators to deliver effectively. On the part of the learners, the main factor was their capacity to cope with the programme's requirement.

In light with the above, it can be highlighted that the factors that led students to dropout have remained practically the same for the last 20 years, even though education expenditure has increased significantly. Demographic factors like age can also be an important factor leading to dropout. Pierrakeas et al. (2004) revealed that 57.4 percent of student's dropouts belong to the 30-39 age group – typically a period of one's life that is quite demanding in terms of balancing occupational obligations and family responsibilities. Another demographic factor gender is also seen as influencing factor such that female learners predominate in ODL universities (cited in Oliveira et al., 2018). This is also the case at the Open University of Mauritius. Regarding gender biasness, Tarimo (2013) reported that male learners have a higher dropout rate. On the other hand, Oliveira et al. (2018), did not find any statistical difference in dropouts between male and female learners. This inconsistency is thus worth investigating.

The other question that then comes is whether something can be done to prevent dropout. As such, we have to refer to those studies that propose retention factors. Berge and Haung (2004) proposed a framework to curb dropout, and this includes:

1. Encourage commitment (personal goal commitment, institutional initial and ongoing commitment)

2. Enhance integration (management and support services that enhance academic and social experiences)
3. Improve delivery systems (delivery of instruction and support in online, blended and in-person settings, e.g., instructional support services, student support services, staff development on proactive academic advising; institutional network)
4. Increase person-environmental fit (ease stages of transition, facilitate person- institutional, person-circumstantial and institutional-circumstantial fit)
5. Improve outcomes (academic outcomes such as academic performance and intellectual development, psychological outcomes such as perceived utility and satisfaction)

Another important recommendation by Arhin and Wang’eri (2018) is that orientation programs provided to students should be organised in such a manner that they provide students an opportunity to have and maintain meaningful relationships with staff. This could eventually increase students’ sense of connectedness and integration into the institution, which could enhance their retention. They further stress upon supporting the interest of students’ retention through a continuous orientation process from the beginning of admission throughout the entire first year.

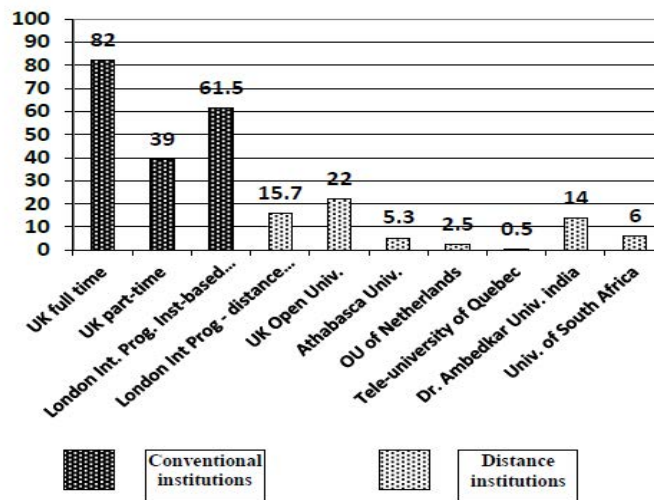


Fig. 1. Graduation rates across higher education institutions (Simpson, 2013)

A study carried out by Simpson (2013) investigated graduation rates of universities operating both in distance and traditional modes. Figure 1 shows that the graduation rates of ODL institutions were significantly lower than that for traditional face-to-face universities. For example, UK full time universities’ graduation rate was 82% compared to 22% for the UK Open University. According to the Guardian (2018) the graduation rate for the UK Open University further deteriorated to 13%. If we go by the definition of Tan and Shao (2015) who purported that dropout and graduation rates are intrinsically linked and that high dropout rates inevitably lead to low graduation rates, we can conclude that dropout rates for ODL institutions are significantly higher than that for traditional universities.

2.4. Theoretical framework used

There are various theoretical frameworks which explain the causes of dropout and the ones which have guided this study have been formulated by Jordan et al. (1994), Boyles (2000), Berge and Huang (2004) and Raghavan et al. (2015) whereby variables related to dropout include Personal variables (such as work, family, age, health), Institutional variables (such as institutional attitude and learner support), Circumstantial Variables (such as course design and facilitation) and Situational barriers (such as day care centres for the learners’ children, transportation, financial or legal difficulties, which may not be under their control). These studies provide a framework that englobe both the intrinsic and the extrinsic variables. Based on the above, the following model is being proposed to investigate dropout at the university.

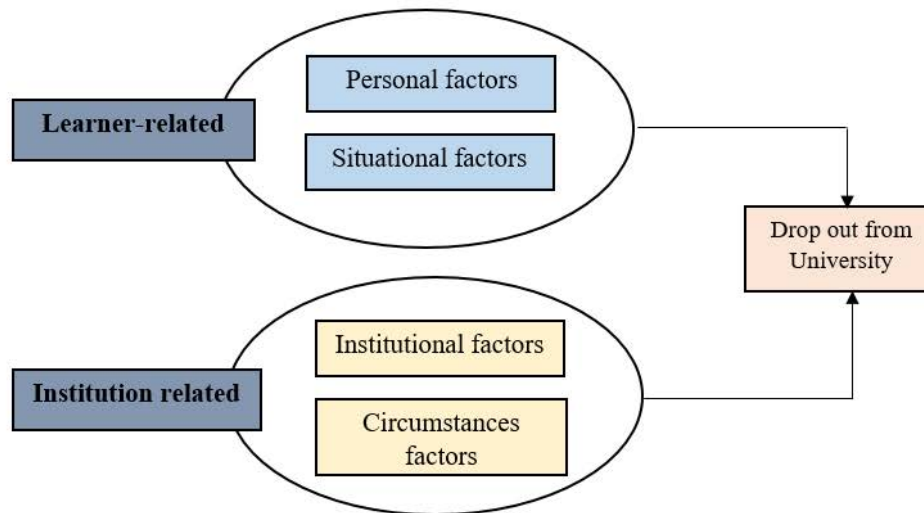


Fig. 2. Proposed framework for investigating dropout

3. Aims and Objectives

Retaining students is both a priority and an unrelenting challenge in higher education, whether in conventional face-to-face settings or in distance education (Tinto, 1975, 1982; Berge and Haung, 2004; Heyman, 2010). Tinto's (1982) analyses of undergraduate degree completion rates from 1880-1980 prompted him to say "rates of dropout from higher education have remained strikingly constant over the past 100 years" (p. 694). He observed that students were dropping out at a rate of 45% with little variation over time (Fraser et al, 2018). The purpose of this study is to investigate the factors and root causes leading to student dropout in a young emerging university on the small developing island of Mauritius. The study should shed light as to whether trends and causes of drop out line up with international ones. The findings of this study should direct the academic division and learner support unit to review existing policies and introduce new ones to help make distance education a better learning experience, while motivating and encouraging those on the verge of dropping their studies. A clear understanding of what factors contribute to learner attrition, including withdrawal from or non-completion of courses, is necessary in order to formulate appropriate retention strategies. This research can thus enable the student support staff at the Open University, as well as staff at other universities offering open and distance learning, to deal with adult learners more efficiently and effectively, thereby minimising dropout.

The research objectives that guided this research are:

1. To analyse the actual dropout rates at the Open University of Mauritius among a selected sample of undergraduate and postgraduate learners over specific course durations for cohorts 2013, 2014 and 2015,
2. To critically examine intrinsic and extrinsic factors which might play a determining role in causing learners to drop out from their studies at different levels or stages of their studies,
3. To identify explicit measures that can be recommended to substantially reduce the possibility and occurrence of dropout in universities,
4. To devise a comprehensive framework based on pertinent constructs which can aid in policy formulation in academia to address the issue of dropout in a sustainable manner.

4. Methodology

4.1. Research Model

The study adopts a purely quantitative approach which is compatible with the research objectives. This method will ensure that:

- objective data are obtained which can be used to make informed decision about dropouts and management of related issues.
- an in-depth analysis of facts and figures is conducted to guide future policy decisions to minimise dropouts

4.2. Target audience and sampling

The respondents were randomly selected from the database of learners who have dropped from their programmes. Both primary and secondary data were collected to address the research questions of this research project. Secondary data from the Academics Affairs Division, the Examination section, and the Admission Unit were collected and analysed to investigate the overall dropout rates at the Open University of Mauritius. Given that the institution is relatively young and that the programme duration for Undergraduate and Masters Programs is six years and two years respectively, it has been possible to analyse data only from cohorts who joined the university in 2013, 2014 and 2015. Hence, for undergraduate courses, only the cohort for the year 2013 was taken into consideration; while for Master's programs, cohorts for the year 2013, 2014 and 2015 were compiled for this study. The sample consisted of the following:

Table 2.

Respondents' profile

Programmes	Intakes
Foundation courses	April 2013
Undergraduate courses	August 2013
Master courses	January 2014
	July 2014
	January 2015

The survey method was adopted due to ease of use to collect quantitative data. A multi-item questionnaire was designed and pilot tested before implementation. A pre-test was carried out with a limited number of learners, falling outside the selected sample. The survey was then tested to ensure reliability and construct validity. The value of Cronbach Alpha was 0.71 which indicated that the scales were reliable. The items in the scale were devised from the literature review and discussions during the pilot test to ensure construct validity. Recommendations were used to design the final questionnaire for the survey. The sample size, derived from the population under study had been devised in the following manner:

$$\text{Population, } N = 110$$

$$\text{Desired sample size at 95\% confidence interval} = 86$$

$$\text{Effective sample size, } n = 96$$

4.3. Validity and Reliability

The sample is almost 100 percent of the population size and thus results in a high validity of results. It is to be noted that the research collected more responses than the desired sample size (n= 96 where hypothetical n = 86). In order to maximise reliability of the survey, a pre-test was conducted with a few learners. Based on the responses obtained, a pilot test was carried out with a larger group, based on which the final survey questions were devised. A few questionnaires could not be filled due to un-traceability of some respondents. The responses were analysed using statistical software with both descriptive and inferential outputs.

5. Data Analysis & Findings

5.1. Analysis of secondary data

Both primary and secondary data were collected to address the research questions of this study. Secondary data from the Academics Affairs Division, the Examination section, and the Admission unit were collected

and analysed to investigate the overall dropout rates at the Open University of Mauritius. Given that the institution is relatively young and that the programme duration for Undergraduate and Masters Programmes is six years and five years respectively, it has been possible to analyse data only from cohorts who joined the university in 2013, 2014 and 2015. Hence, for undergraduate courses, only the cohort for the year 2013 was taken into consideration; while for Master's programmes, cohorts for the year 2013, 2014 and 2015 were compiled for this study. The overall dropout rate for undergraduate and master level were 39.14% and 17.31% respectively as summarised in Table 3. Dropout rates for higher education institutions using the ODL mode of learning vary from country to country (Simpson, 2013). It varies between 40-50% for such institutions as Tele-university of Quebec, OU of Netherlands and Athabasca University. At times it is not very clear if dropout rates are reported for all the courses combined or at a specific level only.

Table 3.

Drop rate in Open University of Mauritius

Level	Learners Enrolled	Participation in 1 st Exams	Graduated	% Not Taking 1 st Semester Exams	Overall Dropout
Foundation courses	612	609	330	0.49%	46.08%
Undergraduate	626	600	381	4.15%	39.14%
Masters	647	584	535	9.74%	17.31%
Total	1885	1793	1246	4.88%	33.90%

The dropout rate at the Master's level is much lower, hence revealing that those who have had previous university learning experience were more successful using the ODL mode of learning. First-time university learners might need greater attention and support from the university. ODL mode of learning has its own characteristics and challenges which include self-discipline, learner autonomy, self-motivation and working in isolation, all of which stand as barriers to successful learning.

For the foundation courses which have a programme duration of two years, the dropout rate at this level when computed for cohorts 2013 to 2015 was found to be 46.08%. Foundation courses are taken by learners who want to meet the entry requirements for tertiary studies. These learners usually have low prior learning abilities which would explain the high drop-out rate. The overall dropout rate of the university, all courses combined, is 33.9%, which is significantly lower than other universities.

In fact, if only degree programmes are considered the dropout rate would be 28.04%. Despite this relatively lower dropout rate, the second phase of the study probed into the causes of same.

5.2. Analysis of primary data

Descriptive statistics

Ninety-six learners who dropped out of their studies at some point in time, responded favourably to the survey. There were more male participants (55.2%). If we consider that there are generally more female learners (65.5%) who enrol at tertiary level (Statistics Mauritius, 2017), then it can be safely concluded that dropout rate for male learners was higher, supporting that female learners tend to be more persistent in their studies.

The age distribution as per Figure 3 shows that most of the respondents (72%) were from the age groups 18-25 and 25-35 which is representative of the student population at the Open University. This indicates that there are less dropouts among the more mature learners and this is in line with the findings of Kahu et al. (2013) who reported that adult students have strong motivation to persist with the completion of their studies.

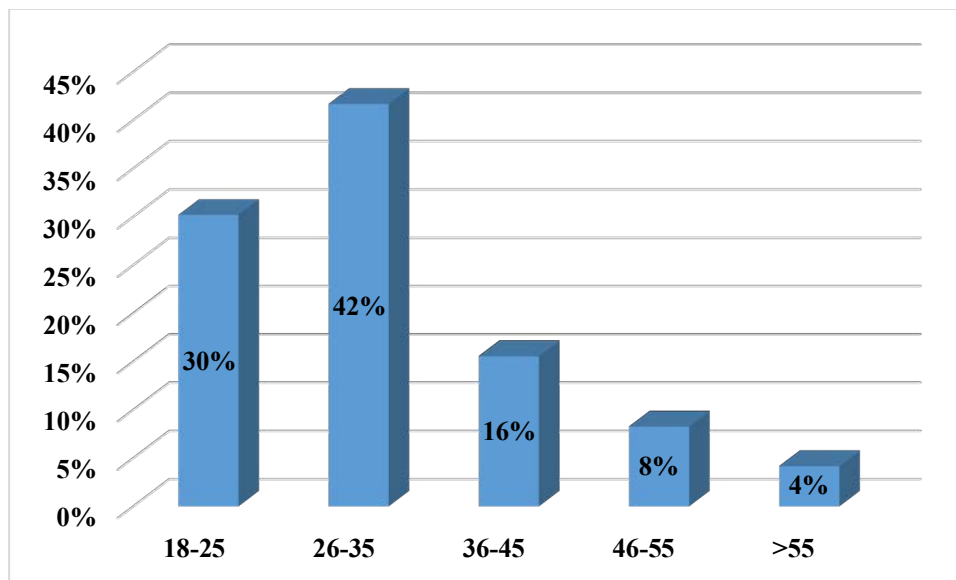


Fig. 3. Age group

Around half of the respondents were single and 62.5% did not have children. Based on these statistics, it can be deduced that being a parent or having other family commitments were not major factors contributing to attrition. In fact two other items of the questionnaire revealed that 38.5 % of the respondents reported not having any family commitments. For those having such commitments, this was not a major hindrance to pursuing further studies (Figure 4).

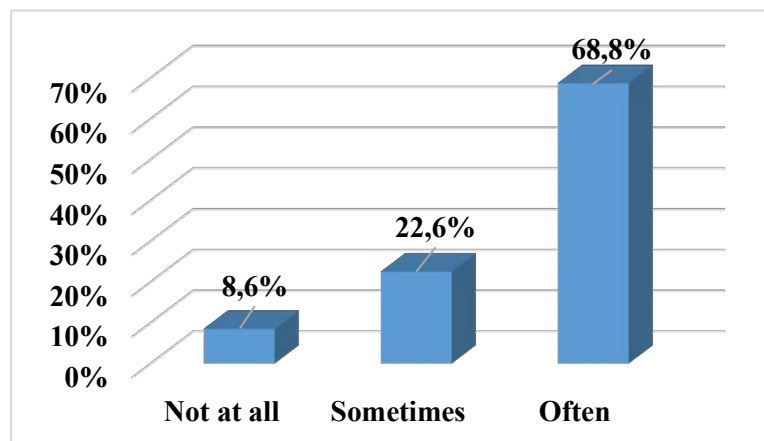


Fig.4. Does your family commitment allow time for studies?

Moreover, 89.2% of the respondents were in full-time employment, confirming that at the Open University of Mauritius, most of the learners are working adults.

Data showed that there were 12% more respondents from the private sector. This confirms the general perception that those working in the private sector are more likely to drop out as they have less time to devote to studies, given that they have longer working hours. Moreover, permission from employers to attend lectures, tutorials and examinations is often a problem.

In terms of levels of programme, 56.3% of the respondents were registered for an undergraduate degree course and 25% for a Master’s one. This finding concurs with that of the previous section whereby dropout for undergraduate courses was found to be more than twice that at masters’ level. First timers at university definitely have greater challenges to transition from their traditional college practices which include didactic methods of teaching and rote learning (Hassel and Ridout, 2018).

All category distribution

Respondents were requested to select the two main categories of causes that led to their dropping out of their studies. Figure 5 shows that the two most commonly reported categories were related to personal and career issues. A significant 15% of the respondents also reported lack of employer support, inappropriateness of course programmes and inadequate tutor support as main reasons leading to dropout.

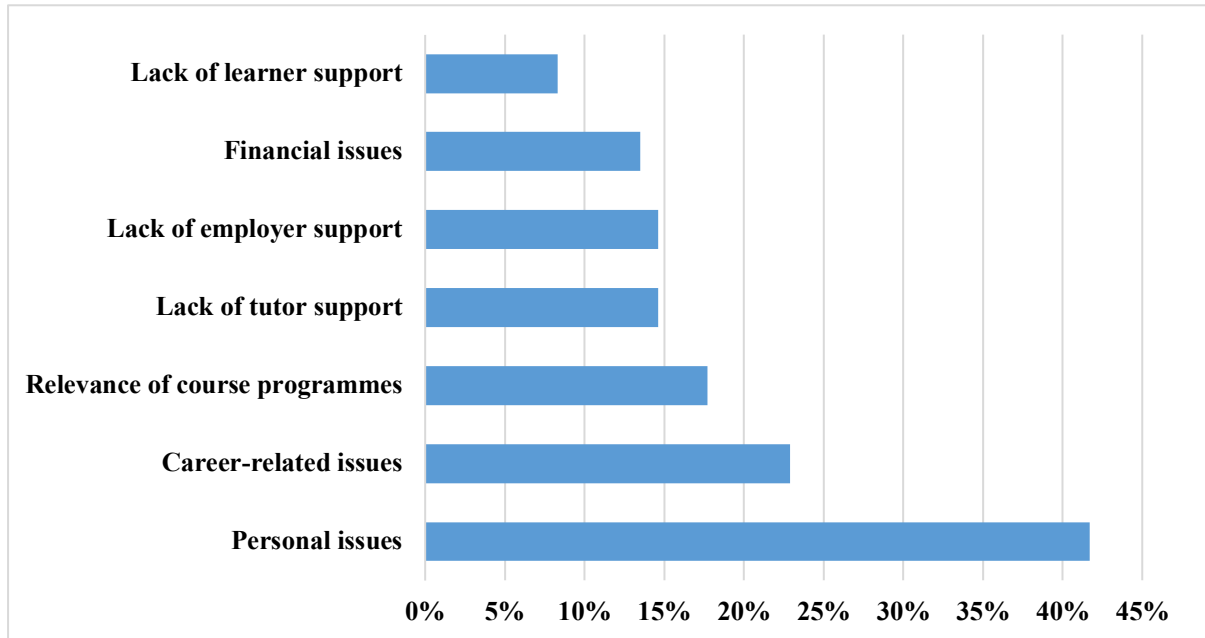


Fig. 5. Causes for dropout

Within each category, respondents were further requested to select up to 3 sub causes that affected their study experience.

Main sub causes

One of the main causes reported was change in personal goal, hence revealing that people embrace new priorities with time, leaving personal professional development and training to second or third place (Figure 6).

The second major cause of dropout was lack of time. Respondents might have underestimated the time it takes to study part time or were simply unable to integrate learning as part of their living. Sometimes the ODL mode of learning entails sacrificing certain activities and re prioritising others.

The third sub cause revealed that learners made the wrong choice of course study, not appropriate to their needs and aspirations. Learners need guidance in choosing the right course of study, one for which they can sustain interest and that can meet their expectations.

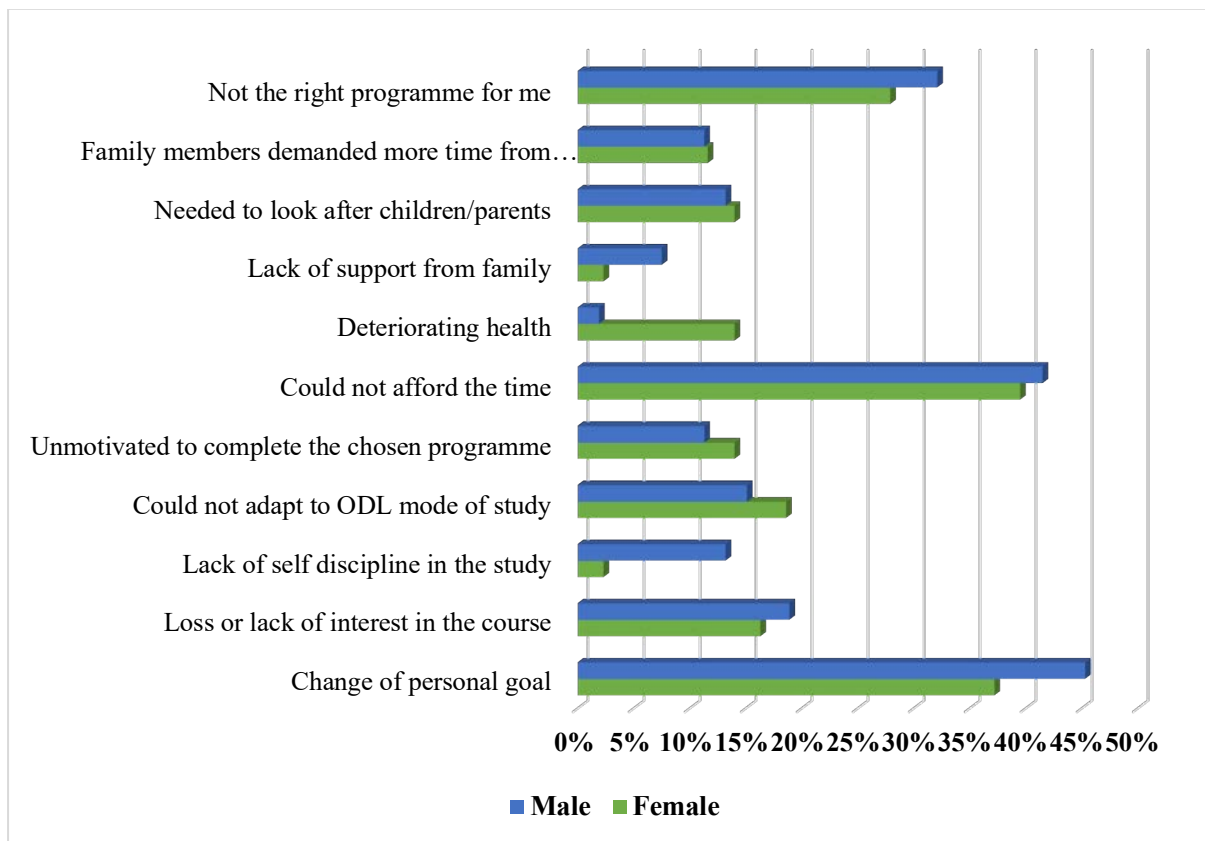


Fig. 6. Personal Issues

For those who selected career-related issues as one of the two main causes leading to dropout, the two main sub causes were change in position in current job and working on shift duty. Once again this reveals that working conditions and environment can be a significant hindrance for adult learners leading to dropout.

Other sub factors

Among the most common sub factors highlighted by around 15% of respondents were:

1. Wrong choice in programmes/courses
2. Inadequate tutor support
3. Teaching method was poor or unsatisfactory
4. Employer’s reluctance to give release or permission to leave job earlier to attend sessions.

The tutor factor was a serious contribution to dropout. Kahu et al. (2013) explained that since ODL learners do not meet their tutors and lecturers regularly, they are at greater risk of feeling isolated. Pierrakeas et al. (2004) also found that tutors’ inadequate interaction and poor feedback contributed to learner dropout.

Maxwell et al. (2015) reported in their study that ODL learners face a lot of difficulty seeking permission from their employer to pursue further studies. This study confirms this finding as 14.1% reported not having permission to leave job earlier to attend tutorial sessions.

A few respondents did mention that the wrong choice of courses led to dropout. Pierrakeas et al. (2004) revealed that lack of prerequisite knowledge and wrong choice of programme led learners to drop out. It is therefore vital for higher education institutions to provide adequate support and induction sessions to assist them in choosing their field of study.

5.3. Inferential Statistics

Table 4.

Issues with significant gender biasness

	Insufficient tutorials	Inadequate tut support	Tutor's attitude	Poor Teaching
Mann-Whitney U	970.500	912.500	1033.500	960.500
Wilcoxon W	2401.500	2343.500	2464.500	2391.500
Z	-2.353	-2.736	-2.256	-2.157
Asymp. Sig. (2-tailed)	.019	.006	.024	.031

Generally, responses were not gender-biased. However, the Mann Whitney test revealed significant differences in responses between men and women for issues mentioned in Table 4. In their decision to drop out, women were more influenced by issues like poor teaching, insufficient tutorials, inadequate support and the tutor's attitude.

There was a statistically significant difference in responses between married and single respondents with more of the latter dropping out because of a 'change in personal goal' (U=853, p=0.028). This is rather obvious as married people are usually more stable in life and do not frequently change their personal goals, hence having less impact on dropout intention.

Measures to avoid dropout

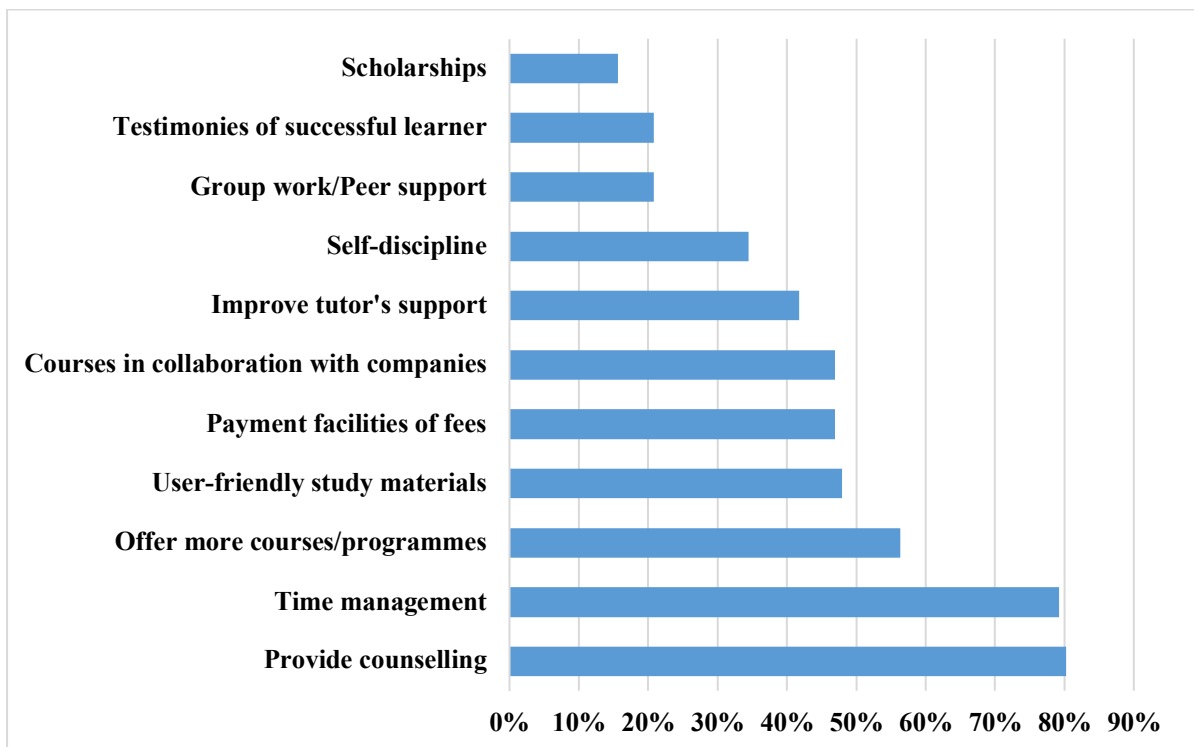


Fig. 7. Measures to avoid dropout

The respondents were asked to select five measures which they considered as most important to avoid dropout among ODL learners. Figure 7 shows that the most common measures highlighted were 'provide counselling before registration and during studies' (80.2%) and 'time management' (79.2%). It can be said that ODL learners feel the need for additional support and assistance to manage their time and their academic progress during their study period which can reduce the likelihood of dropouts. According to Mishra (2014), providing counselling in the online distance-learning environment is crucial since learners experience both academic and non-academic difficulties. In addition, a study by Tung (2012) found that professional and trained counsellors should be more dedicated to helping learners' personal issues such as

effective time management to maximise their chances of completing their study program. Subsequently, developing effective counselling systems would primarily help institutions to improve retention (Kahu et al., 2013).

Five additional measures were highlighted by more than 50% of the respondents to curb down the dropout rate. There is a need to offer a wider choice of programmes, make the study materials more user-friendly, improve modalities for payment of fees, develop courses in line with industry requirements and improve tutor's support. Men, more than women, found it important that the university offers courses in collaboration with reputed companies ($U= 892, p= 0.035$). Some of the findings corroborate with the discussions made by other authors. In their study, Liesbeth et al. (2018) revealed that some strategies to mitigate student dropouts include meaningful learner-tutor interactions and learner-course interactions with a wider choice of user-friendly learning materials. Tladi (2013) reported that with sufficient tutorial support and student counselling, student dropouts can be minimised. However, according to Radovan (2019), it is complicated for universities to address difficulties which are not within their reach. Moreover, Tladi (2013) found that learners made little use of the assistance provided by universities to address the challenges.

6. Conclusions and Recommendations

Dropout is a central feature of the in-built learning model of all universities, more so of institutions operating in the ODL mode. Unfortunately this is an unavoidable problem that often figure on a university's agenda and finding ways and means to keep a low attrition rate is an absolute necessity.

This study has shown that female learners have higher chances of persisting in their studies and mature learners, that is those over 36, are less likely to drop out. The findings have also confirmed that first-year university students encounter transformational changes as they negotiate the handles of transition to fit in the new learning environment. This reinforces the importance of orientation programs to play a key role in enhancing first-time learners' engagement to persist in their higher education (Horstmanshof and Craig, 2007; Casanova et al., 2018). Being a parent or having other family commitments were not found to be an important dropout variable. This is in contrast with previous research which revealed a relationship between student attrition and environmental factors such as family commitment (Huggins, 2016).

The study has also revealed that the Open University of Mauritius has a rather low attrition rate of 33.9% compared to other open universities in the world (compare with statistics - Figure 1). The profile of its learners which is mostly working adults, hence more motivated, disciplined, and self-directed in their learning, is certainly a major contribution to this low attrition rate. Moreover, as a young university, OU has learned from the mistakes of others and has maximised on technological affordances to meet varying learning needs, using the Moodle platform, video supported lessons and online tutorials to assist learners. The major causes of dropout at OU are summarised in the framework below (Figure 8). The size of the boxes indicates the relative importance of each variable. The pink and blue colours have been chosen to show those which are more female-biased and male-biased respectively. Change in personal goals and time management have a neutral colour, hence showing no gender bias for these two variables.

Conducting tutorials in the ODL environment is a challenging endeavour for many experts and necessitates some key skills. At OU, face-to-face sessions are limited to five per module and finding the right balance between lecturing and empowering learners to self-learning is not always an easy task. Discussion forums and other online platform facilities are not always maximised. This concern was voiced out by respondents of this study and there is a need for remedial actions. Training sessions must be organised for both tutors and learners to familiarise themselves with this new learning paradigm and the technological affordances that can ease learning from a distance. Sometimes potential learners jump on the learning bandwagon, especially that tertiary education is free in Mauritian public universities, without really assessing the requirements of the ODL environment. They need to be accompanied, mentored and supported in their choice of programme, taking into consideration their area of expertise and career aspirations.

The ODL mode of learning is very much learner-centred and learner dependent. Learners must be empowered in planning and managing their learning time. While ODL offers a lot of flexibility, there is

time restriction for the submission of assignments and for writing exams. If there is no proper learning schedule, even committed learners can be taken by surprise. The major cause of attrition at OU remains the change of personal goal, indicating that with time people reshuffle their list of priorities, embark on new projects and eventually drop out of their studies. Based on Raghavan et al. (2015) two categories of deterrents for dropouts, namely dispositional and structural, institutions can implement remedial measures to address the latter one, but as regards dispositional factors, much remains with the learners themselves.

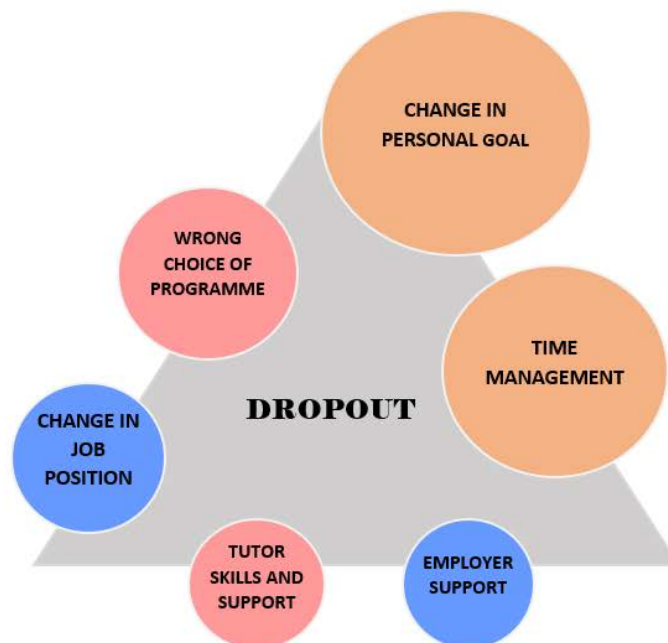


Fig. 8. Dropcause - Framework for dropout

It is unfortunate for learners to drop out because they have enrolled on the wrong course. It is therefore important to ensure that course/programme titles reflect the content of study and that a summary of the learning content is available for consultation. Counselling sessions can assist those in doubt to select an appropriate course for study.

This study has also revealed that there is a tendency for the private sector to be more reluctant to release its employees for studies held outside work premises. Further research might unveil the causes. It is equally important to sensitise private enterprises about the importance of continuous professional development and encourage them to implement policies that will facilitate employees to register and complete university programmes.

It was also found that school leavers were more prone to drop out. This was probably linked to challenges in embracing university studying pattern where the new paradigm calls for independent and self-directed learning. They must therefore be accompanied in this new world, especially in the first months of their study when isolation can be so discouraging.

Limitations:

Reaching out to the dropout students and getting them to fill in a questionnaire was a real challenge. Fraser et al. (2018) reported that distance education students who discontinued their studies were often unlikely to respond, especially if they left a few years previously. Many dropout students were apprehensive and reluctant to participate in the survey. Although 96 ex-students participated in this survey, a higher number would have been desirable. This would have allowed course-wise analysis to see if dropout is more acute for certain courses.

References

- Alias, N. A., & Jamaludin, H. (2005). The aches of online distance learning: A synthesis of three Malaysian studies. *Asian Journal of Distance Education*, 3(2), 48-54.
- Aljohani, O. (2016). A Comprehensive Review of the Major Studies and Theoretical Models of Student Retention in Higher Education. *Higher education studies*, 6(2), 1-18.
<https://doi.org/10.5539/hes.v6n2p1>
- Arhin, V., & Wang'eri, T. (2018). Orientation Programs and Student Retention in Distance Learning: The Case of University of Cape Coast. *Journal of Educators Online*, 15(1), 5-12.
<https://doi.org/10.9743/jeo2018.15.1.6>
- Bağrıacık Yılmaz, A., & Karataş, S. (2022). Why do open and distance education students drop out? Views from various stakeholders. *International Journal of Educational Technology in Higher Education*, 19(1), 1-22. <https://doi.org/10.1186/s41239-022-00333-x>
- Berge, Z. L., & Huang, Y. P. (2004). A Model for Sustainable Student Retention: A Holistic Perspective on the Student Dropout Problem with Special Attention to e.Learning, *Deosnews*, 13(5), 1-26.
<https://doi.org/10.13016/m2eedf-fwrn>
- Boyles, L. W. (2000). Exploration of a retention model for community college students. The University of North Carolina at Greensboro. (Doctoral dissertation). Available from ProQuest Dissertation and These databases. (UMI No. 304609763).
- Casanova, J. R., Cervero Fernández-Castañón, A., Núñez Pérez, J. C., Almeida, L. S., & Bernardo Gutiérrez, A. B. (2018). Factors that determine the persistence and dropout of university students. *Psicothema*, 30(4), 408 – 414.
- Delnoij, L. E., Dirx, K. J., Janssen, J. P., & Martens, R. L. (2020). Predicting and resolving non-completion in higher (online) education – A literature review. *Educational Research Review*, 29, 100313.
<https://doi.org/10.1016/j.edurev.2020.100313>
- Fraser, J., Fahlman, D. W., Arscott, J., & Guillot, I. (2018). Pilot testing for feasibility in a study of student retention and attrition in online undergraduate programs. *The International Review of Research in Open and Distributed Learning*, 19(1), 261-266.
<https://doi.org/10.19173/irrodl.v19i1.3326>
- Fozdar, B. I., Kumar, L. S., & Kannan, S. (2006). A survey of a study on the reasons responsible for student dropout from the Bachelor of Science Programme at Indira Gandhi National Open University. *International Review of Research in Open and Distributed Learning*, 7(3), 1-15.
<https://doi.org/10.19173/irrodl.v7i3.291>
- Frydenberg, J. (2007). Persistence in university continuing education online classes. *International Review of Research in Open and Distributed Learning*, 8(3), 1-15.
<https://doi.org/10.19173/irrodl.v8i3.375>
- Hassel, S., & Ridout, N. (2018). An investigation of first-year students' and lecturers' expectations of university education. *Frontiers in psychology*, 8(2218), 1-13.
<http://dx.doi.org/10.3389/fpsyg.2017.02218>
- Heyman, E. (2010). Overcoming student retention issues in higher education online programs. *Online Journal of Distance Learning Administration*, 13(4), 1-12.

- Horstmanshof, L., & Zimitat, C. (2007). Future time orientation predicts academic engagement among first-year university students. *British Journal of Educational Psychology*, 77(1), 703-705.
<https://doi.org/10.1348/000709906x160778>
- Huggins, J. A. (2016). *Exploring At-Risk Students' Barriers and Supports in Online Learning* (Doctoral dissertation). Available from ProQuest Dissertation and These databases. (10600007).
- Ivankova, N. V., & Stick, S. L. (2007). Students' persistence in a distributed doctoral program in educational leadership in higher education: A mixed methods study. *Research in Higher Education*, 48(1), 93-135.
<https://doi.org/10.1007/s11162-006-9025-4>
- Jordan, W. J., Lara, J., & McPartland, J. M. (1996). Exploring the causes of early dropout among race-ethnic and gender groups. *Youth & Society*, 28(1), 62-94.
<https://doi.org/10.1177/0044118x96028001003>
- Jordan, W. J., Lara, J., & McPartland, J. M. (1994). Exploring the complexity of early dropout causal structures. Baltimore, MD: Center for Research on Effective Schooling for Disadvantaged Students, The John Hopkins University.
- Kahu, E., Stephens, C., Leach, L., & Zepke, N. (2013). The engagement of mature distance students. *Higher Education Research & Development*, 32(5), 791-804.
<https://doi.org/10.1080/07294360.2013.777036>
- Kemp, W. C. (2002). Persistence of adult learners in distance education. *American Journal of Distance Education*, 76(2), 65-81. https://doi.org/10.1207/s15389286ajde1602_2
- Levy, Y. (2007). Comparing dropouts and persistence in e-learning courses. *Computers and Education*, 48(2), 185-204. <https://doi.org/10.1016/j.compedu.2004.12.004>
- Liesbeth, P, Zhu, C, & DePryck, K, (2018). Drop-out, retention, satisfaction and attainment of online learners of Dutch in adult education. *International Journal on E-Learning*, 17(3), 303-323.
- Maxwell, C., Barbra, M, Kudzai, C, & Shupikai, Z,. (2015). Challenges for Open and Distance learning (ODL) Students: Experiences from Students of the Zimbabwe Open University. *Journal of Education and Practice*, 6(18), 59-66.
- Mishra, L. (2014). Academic counselling in distance education: IGNOU experience. *Pedagogy of Learning*, 2(1), 62-68.
- Mishra, S. (2017). Open Universities in the Commonwealth: At a Glance. Retrieved on July 10, 2023 from: <http://hdl.handle.net/11599/2786>.
- Moore, K., Bartkovich, J., Fetzner, M., & Ison, S. (2003). Success in cyberspace: Student retention in online courses. *Journal of Applied Research in the Community College*, 10(2), 107-118.
- Morris, L. V., Finnegan, C., & Wu, S. (2005a). Tracking student behavior, persistence, and achievement in online courses. *The Internet and Higher Education*, 8(3), 221-231.
<https://doi.org/10.1016/j.iheduc.2005.06.009>
- Muljana, P. S., & Luo, T. (2019). Factors contributing to student retention in online learning and recommended strategies for improvement: A systematic literature review. *Journal of Information Technology Education: Research*, 18, 19-57. <https://doi.org/10.28945/4182>

- Nielsen, S. M. (2008). "Half bricks and half clicks": Is blended onsite and online teaching and learning the best of both worlds? In M. S. Plakhotnik & S. M. Nielsen (Eds.), *Proceedings of the Seventh Annual College of Education Research Conference: Urban and International Education Section* (pp. 105-110). Miami: Florida International University.
- Oliveira, P. R., Oesterreich, S.A & Almeida, V. L. (2018). School dropout in graduate distance education: evidence from a study in the interior of Brazil. *Thematic Section: Higher Education, 44*, 1-20. <https://doi.org/10.1590/S1678-4634201708165786>
- Patterson, B. & McFadden, C. (2009). Attrition in Online and Campus Degree Programs. *Online Journal of Distance Learning Administration, 12*(2), 1-8.
- Perry, B., Boman, J., Care, W. D., Edwards, M., & Park, C. (2008). Why do students withdraw from online graduate nursing and health studies education? *Journal of Educators Online, 5*(1), 1-17. <https://doi.org/10.9743/jeo.2008.1.2>
- 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), 1-15. <https://doi.org/10.19173/irrodl.v5i2.183>
- Pigliapoco, E., & Bogliolo, A. (2008). The effects of psychological sense of community in online and face-to-face academic courses. *International Journal of Emerging Technologies in Learning, 3*(4), 60-69. <https://doi.org/10.3991/ijet.v3i4.201>
- Radovan, M. (2019). Should I stay, or should I go? Revisiting student retention models in distance education. *Turkish Online Journal of Distance Education, 20*(3), 29-40. <https://doi.org/10.17718/tojde.598211>
- Raghavan, S., Mohayidin, G., & Chun, L. S. (2015). Access to Higher Education via ODL: Addressing Attrition to Maximise University Sustainability. *American Journal of Economics, 5*(2), 208 -216. <https://doi.org/10.5923/c.economics.201501.26>
- Simpson, O. (2013). *Supporting Students for Success in Online and Distance Education*. Routledge: New York. <https://doi.org/10.4324/9780203095737>
- Smith, B. (2010). E-learning technologies: A comparative study of adult learners enrolled on blended and online campuses engaging in a virtual classroom. [Doctoral dissertation]. Available from ProQuest Dissertation and These databases. (UMI No. 3413143).
- Statistics Mauritius (2017). Education Statistics. Retrieved on February 15, 2019 from: https://statsmauritius.govmu.org/Documents/Statistics/ESI/2017/EI1337/Edu_Yr17.pdf
- Tan, M., & Shao, P. (2015). Prediction of Student Dropout in E-Learning Program Through the Use of Machine Learning Method. *International Journal of Emerging Technologies in Learning, 10*(1), 11-17. <https://doi.org/10.3991/ijet.v10i1.4189>
- Tarimo, A. (2013). Factors Affecting Students' Enrolment and Dropout at the Open University of Tanzania, Lindi Region. Huria. *Journal of the Open University of Tanzania, 14*(1), 111-133.
- Tat-Sheung, A. O., Li, K. & Wong, T.M. (2018). Student persistence in open and distance learning: success factors and challenges. *Asian Association of Open Universities Journal, 13*(2), 191-202. <https://doi.org/10.1108/AAOUJ-12-2018-0030>

- The Guardian (March 2018). Worries grow about the survival of the Open University. Retrieved on September 13, 2019 from: <https://www.theguardian.com/education/2018/mar/25/worries-grow-about-the-survival-of-the-open-university>
- Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent literature. *A Review of Educational Research*, 45(1), 89-125. <https://doi.org/10.3102/00346543045001089>
- Tladi, L.S. (2013). Factors affecting examination attrition: does academic support help? A survey of ACN203S (cost accounting and control) students at Unisa, *Open Learning: The Journal of Open, Distance and e-Learning*, 28(1), 67-82. <https://doi.org/10.1080/02680513.2013.782812>
- Tung, L. C. (2012). Proactive Intervention Strategies for Improving Online Student Retention in a Malaysian Distance Education Institution. *MERLOT Journal of Online Learning and Teaching*, 8(4), 312-323.
- Watt, D., & Roessingh, H. (1994). Some you win, most you lose: Tracking ESL dropout in high school (1988-1993). *English Quarterly*, 26(3), 5-7.
- Xavier, M., & Meneses, J. (2020). Dropout in online higher education: A scoping review from 2014 to 2018. *Barcelona: eLearn Center, Universitat Oberta de Catalunya*, 10.
- Xenos, M., Pierrakeas, C., & Pintelas, P. (2002). A survey on student dropout rates and dropout causes concerning the students in the Course of Informatics of the Hellenic Open University. *Computers and Education*, 39(4), 361-377. [https://doi.org/10.1016/s0360-1315\(02\)00072-6](https://doi.org/10.1016/s0360-1315(02)00072-6)