

AUTHOR:

Dr Antonia Makina<sup>1</sup> 

AFFILIATION:

<sup>1</sup>University of South Africa

DOI: [http://dx.doi.](http://dx.doi.org/10.18820/2519593X/pie.v40.i2.4)

[org/10.18820/2519593X/pie.v40.i2.4](http://dx.doi.org/10.18820/2519593X/pie.v40.i2.4)

e-ISSN 2519-593X

Perspectives in Education

2022 40(2): 32-51

PUBLISHED:

08 June 2022

RECEIVED:

26 October 2021

ACCEPTED:

07 January 2022

---

# Students experiences of demotivating online formative assessment strategies at an open distance learning university

---

## Abstract

*There is a growing body of research that suggests that improving the quality of online formative assessment strategies increases students' motivation to participate in online assessment. However, the way in which course leaders at open distance learning universities communicate the expectations of learning to students through online formative assessment strategies largely determines how students approach online formative assessment tasks. The design of online formative assessment strategies is an important element that is needed to promote an interactive level of engagement needed for motivating students learning online. It is against this background that this paper investigated the experiences of students with demotivating online formative assessment strategies at an open distance learning institution. The study achieved this through phenomenography, a developmental, qualitative and non-dualistic case study research. Twelve purposively selected students from a postgraduate course were interviewed to understand their experiences with demotivating online formative assessment strategies. Students identified seven demotivating online formative assessment strategies that provided insight to course leaders in the production of more motivating assessment strategies.*

**Keywords:** *Demotivating online formative assessment strategies (DOFAS), online assessment, motivation, lecturer, phenomenography, open distance learning (ODL).*

## 1. Introduction

Since open distance learning (ODL) was introduced in higher education institutions, it became necessary to accept online teaching as part of the institutional operational plan (UNISA, 2017). However, the expectation of the plan to carry out online teaching and learning did not in itself translate into how the institution could adopt or adapt to the initiative. It was not only challenging experiences for students studying at a distance, using information and communication technology (ICT), but there was also a need to ensure a consistent, high quality online experience. E-teaching and learning in higher education required a new way of thinking

for the lecturer and hence a new way of motivating student participants in online assessment as this was a new full-time space for the students and the lecturers (UNISA, 2017). The support and guidance that was required for the lecturers to be able to work successfully and effortlessly online was not easily available (UNISA, 2017).

With the advent of new technologies for teaching and learning, online teaching and learning is emerging as a growing trend in Open and Distance Learning (ODL) and gaining wider popularity among African higher education institutions (Mathew & Ebeelloanya, 2016). The move by the ODL institutions that are growing fast in the education sector in South Africa towards online learning has made online formative assessment a complex issue with which to deal. This is partly because the designing of online formative assessment strategies is still new ground in the higher education system, and with the adaption of open distance learning principles for online learning, lecturers started investigating using online formative assessments as a motivation for student engagement. It has been stated that “[s]tudents can, with difficulty, escape from the effects of poor teaching however, they cannot escape the effects of poor assessment if they want to graduate” (Boud 2018:3).

Students' attitude and motivation towards assessment is the critical factor for success in online learning since motivation is a condition for and a result of effective instruction (McLaughlin & Yan, 2017; Prensky, 2010). Therefore O'Neil, Fisher and Newbold (2004), through the distributed pedagogy, encourages the involvement of students in the construction of their learning spaces because they involve new demands with respect to their learning. Students want to contribute to how they want to be taught and assessed, and in this way, they want to be supported. They want their ideas to be built into course structures and into new strategies to be developed for their lecturers to facilitate effective online learning (Bates & Sangra, 2011). Motivation is the key to successful formative online assessment experiences with the students. Understanding and reflecting on various formative assessment strategies used online in an ODL environment can attribute to positive experiences to student motivation. This is especially so in higher education ODL environments. The influence of formative assessment strategies in motivating students to learn has been increasingly examined in education (Gikandi, Morrow & Davis, 2011, McLaughlin & Yan, 2017). However, aspects of students' demotivation to participate online has not been of much interest in the research about online assessment (Andersson & Palm, 2017). In other words, what is the story behind online formative assessment strategies that are demotivating to students. The way in which lecturers communicate the expectations of learning through online formative assessment strategies to the students largely determines how students approach assessment tasks. This paper investigates the experiences of students with demotivating online formative assessment strategies (DOFAS) in an ODL environment. The aim is to reflect on the potential of online formative assessment strategies to enhance the motivation and the quality of the students' online learning experiences.

DOFAS have some of the following characteristics in common that were reflected in this paper. The activities within DOFAS might be too difficult to be managed by the students, since they might not be easy to understand, not fairly or ethically managed by the course leader, not user friendly and do not determine the students' real capabilities. Furthermore, the activities within DOFAS might not show any difference from those who work hard and those who do not and they might cause difficulty for the course leader to retrieve any helpful and meaningful information about the students. This can result in either the students failing the assessment or be deterred from continuing with the assessment. It can also cause the student to drop out

from the whole course, to stop or to just be frustrated to the point of taking long to complete the course. Ultimately, they just cause frustration and dejection from the work being pursued. There is a growing body of research that suggests that improving the quality of formative assessment strategies increases students' motivation to participate in online assessments (Gikandi, Morrow & Davis, 2011; Walker, Topping & Rodrigues, 2008). Quality of all systems in education is important because it touches on aspects of online assessment right through to the strategies used. Quality in education is seen as the conformance to standards, fitness for purpose, excellence and overall, it is seen as effectiveness in achieving institutional goals (Andersson & Palm, 2017). To be in line with the changes in an ODL institution towards teaching online, there was a need for academic capacity building that led to several lecturers enrolling for a Master's in Education in ODL (MEd in ODL) (UNISA, 2017). The dropout rate in the course was as high as 80% (10/50 students completing). Through institutional research it was found that the high dropout rate in the MEd in ODL courses, was partly influenced by the nature of online formative assessment strategies (UNISA, 2017). It was against this background that this paper investigated the experiences of students with DOFAS in the MEd in ODL.

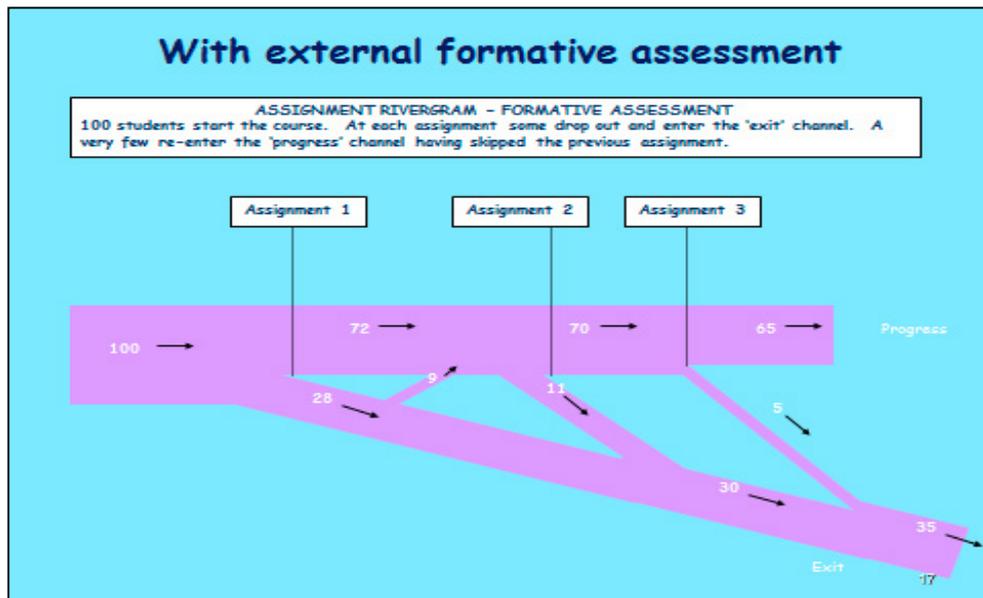
## 2. Formative assessment

Formative assessment is characterised by several purposes that include a feed-out function of assessment, assessment of learning (formative and diagnostic) and assessment as learning which fosters rigorous learning processes in which the learner can engage with tasks that will eventually be assessed (Heritage, Popham & William, 2012; William & Thompson, 2008). Formative assessment is understood to be the collection of students' data and their learning processes, to make particular educational decisions (Gikandi, Morrow & Davis, 2011). Effective integration of formative assessment in online learning environments has the potential to offer an appropriate structure for sustained meaningful interactions among learners and the lecturer, and to foster the development of effective learning communities that facilitate meaningful learning and assessment (Walker, Topping & Rodrigues, 2008). In reviewing the literature about online formative assessment and its pedagogical implications, one cannot help but acknowledge the obvious challenges to its implementation because this requires well-structured strategies that are new to most online educators.

## 3. Student dropout and retention in ODL university courses

From the researcher's personal observation of the university data in the MEd in ODL, in some cases students failed in their attempt to master activities/assignments or completely failed to master the activities assignments from DOFAS. Their achievement in these activities cumulatively contributed to the bad results at the end of the semester course and were then able to pass well within other types of assessment strategies but ultimately did not succeed in some types of assessment strategies. This happened irrespective of whether the assessments were weighted. Hence, cumulatively, they then failed the course. This observation was supported by a "Rivergram" (Figure 1) that originated from a United Kingdom Open University (UKOU) research that showed students progressing on a course but dropping out from assignments that fell in a particular strategy. During certain times within particular assessment types. For example, assignment 1 could have been group work and a lot of students did not make it and assignment 2 could have been a portfolio or from digital communication platforms. A substantial number of students are struggling as shown in Figure 1. Also note that the width of

the river at any point (indicating course assessment) is proportional to the number of students who were still active on the course (Simpson, 2013). The Rivergram is based on the evidence that assessment or assignments can drive the dropout of students.



**Figure 1:** "Rivergram" showing the percentages of students progressing and dropping out during a UKOU foundation course module (Simpson, 2013)

#### 4. Motivation in online formative assessment

A student's motivation towards participation in online assessment and learning has often been reported to be one of the critical factors for success within e-learning (Harandi, 2015; Gormley, Codella, & Shell, 2012). The learners' attention and maintaining their engagement is vital, and if this is ignored, the outcome will be limited participation by students (Prensky, 2010). Motivation is generally defined as the process whereby goal-directed activity is instigated, sustained and controlled by a construct that can originate from the interaction of conscious and unconscious factors (Keller, 2015). Motivation encompasses the real aspects of participation in online formative assessment which embodies a behaviour, which when started, must be kept going (Bekele, 2010).

Motivated learners are more likely to undertake challenging activities that enable active engagement, enjoyment and adoption of a deep approach to learning. They will exhibit enhanced performance, persistence and creativity (Brophy, 2010). These factors could include the intensity of desire or need, incentive or reward value of the goal or expectations of the individual (Harandi, 2015). Covington (2000) described motivated students as individuals who willingly persist on learning tasks that move them toward learning goals. In online motivated environments tasks are goal-oriented and course leaders should have the ability to manipulate online formative assessment strategies to achieve those goals. This is because in online learning environments motivation can influence what students learn, how they learn and when they choose to learn (Harandi, 2015). This paper reports results from a dissertation on DOFAS that were carried out from the students' point of view.

## 5. Students' involvement in developing online formative assessment strategies

Although formative assessment is a key component of the teaching and learning process, little evidence exists to prove that lecturers use their students to inform and guide the design of formative assessment strategies. Students' perceptions in designing assessment tools should be key in influencing the way students proceed with learning (Erhardt, 2014). Quantitative studies by Griffin, McGaw and Care (2012) have demonstrated that students tend to employ different learning approaches or strategies in different situations, according to their perceptions of the assessment requirements. Therefore, the involvement of students in developing assessment strategies would be a positive and relevant approach to teaching and learning online.

Relevant studies in education, especially in higher education institutions, advise that students should be included in the process of developing online assessment (Sewell, Frith & Colvin, 2010; Murnane & Sharkey, 2006; Fisher, Waldrip & Dorman 2005). This is in alignment with student centeredness which requires that students become the focus of the educational process to take progressive responsibility for their learning. This study assumes that there are many advantages in involving students in decision making about online assessment tasks and strategies. It is important to study the characteristics of assessment strategies from the students' perspectives and then utilise the results to integrate into online formative assessment strategies used (Shepard, 2000). Sewell, Frith and Colvin (2010) mention that students' perceptions of online assessment strategies will affect their motivation to approach them and ultimately the teaching approach of the lecturers in an ODL.

## 6. Teaching with online formative assessment strategies

Identifying characteristics of online formative assessment strategies may aid in designing better assessment strategies that motivate students to persist with their studies. The approach in learning adopted by an individual student is not normally an attribute of the student but is their response to the perceived demands of any learning task (Laurillard, 2002). In other words, it is how students respond to an assessment (do they like it or not) that determines an individual's ability or approach to learning (Kauffman, 2015). Therefore, lecturers in online teaching environments need new attitudes, knowledge, skills and ways of operating that will motivate students to learn in online environments (Barker, 2003).

Identifying DOFAS that cause problems for most of the students contribute to success with most students. It also assists lecturers, coordinators and instructional designers in ODL universities to design quality and motivating online formative strategies. This study will provide lecturers and instructional designers with the opportunities to learn and have the information required to design motivating online assessment strategies from the students' point of view. For example, scientific research has developed a formula for motivation in learning that was first recognised during the twentieth century (Wigfield, Cambria & Eccles, 2012) and states that:

Learning motivation = (assumed possibility of accomplishing task) x (Perceived value of task)

If a student sees an online formative assessment activity as invaluable or not possible to accomplish or both they are automatically demotivated to do it.

## 7. The research methodology

This study followed a developmental case study research design of a qualitative phenomenographic approach. Phenomenography provided a means of collecting data that combined analytic and systemic processes to examine the generic components of the online formative assessment strategies as perceived and experienced by the students themselves. Purposive sampling was used to select the 12 lecturers who were current or past students of the MEd in ODL qualification. This type of sampling was chosen because participants were students in the MEd in ODL course and therefore, had experience with the online formative assessment strategies that were used for the course.

Using an interview guide, semi-structured interviews were the main data collection method that gave participants freedom to respond to questions according to their inclination. Participants were first exposed to all the online formative assessment strategies that were used in the MEd in ODL course (Appendix 1) and then asked to identify and describe at least four online formative assessment strategies that they perceived as demotivating to their learning in the MEd in ODL course. The interviews that were first piloted were audio recorded and transcribed to identify the experiences that were related to the research questions. Results were categorised qualitatively into students' descriptive narratives that resulted in emergent themes focused mainly on DOFAS. Themes and sub-themes of DOFAS were identified using the percentages generated from the questionnaires. The participants' confidentiality and anonymity were ensured by using pseudonyms/codes MA#1, MA#2, MA#3... MA#10 during data collection, analysis and reporting stages. Permission to conduct research that dealt with the institutional staff was granted by the Research Permission Sub-Committee (RPSC) and a consent form was sent to the participants.

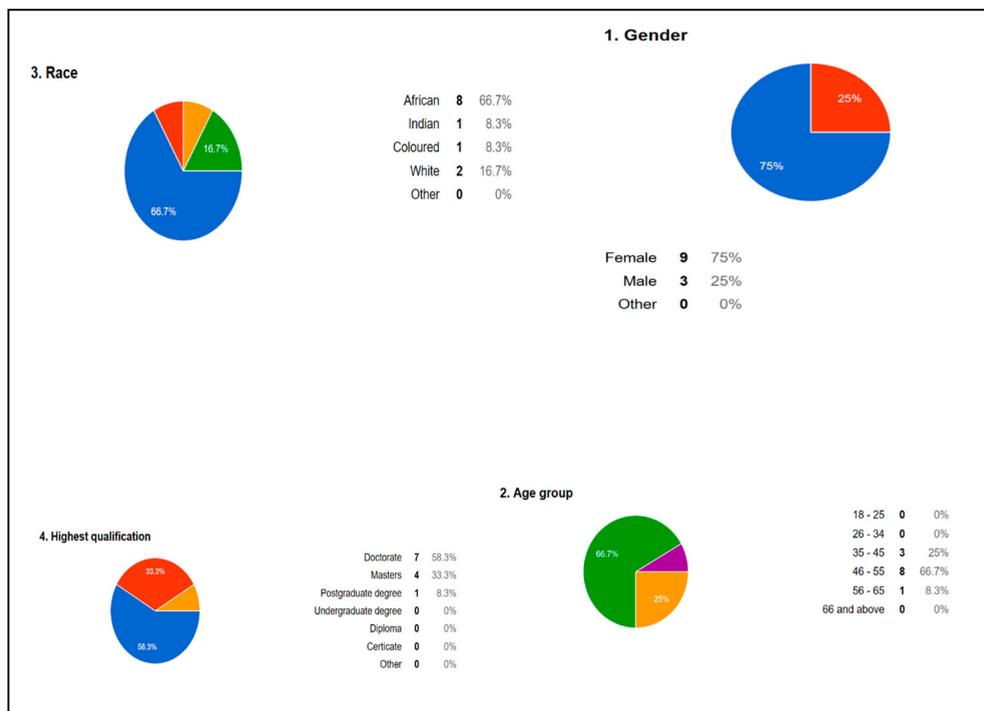
## 8. The theoretical framework

In order to investigate how DOFAS contribute to the failure of students to persist with particular assessments online, the Self-Determination Theory (SDT) describes what motivates students in assessment online and its relationship with the design of online formative assessment. It is against this background that insights from the SDT guided the investigation of DOFAS as it encompassed all the aspects of motivation and online educational settings (Deci & Ryan, 2012). Among the theories of motivation, the SDT offers a broad framework for understanding the factors that promote human motivation and personality that concerns people's inherent growth tendencies and innate psychological needs (Ryan & Deci, 2017). For example, extrinsically motivated students are motivated by gaining good grades, avoiding negative consequences or because the task has utility value, such as passing a course in order to earn a degree (Ryan & Deci, 2000). Online formative assessment strategies need to be designed effectively and efficiently by nurturing the social technical environment in order to motivate students to learn online.

## 9. Results and discussions

### 9.1 *The biographic profile of participants*

A snapshot of the demographic and biographic profile of the participants was represented before analysing the experiences of students with online formative assessment strategies that demotivated them to learn. The demographic profile of the participants included their age, gender, race and the academic qualifications as illustrated in the pie charts in Figure 2.



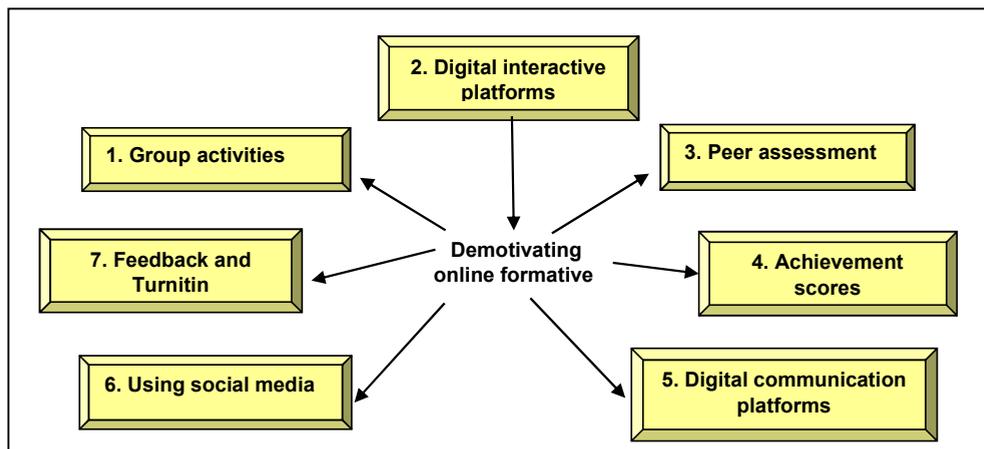
**Figure 2:** Biographic data analysis

The student sample (n=12) is shown as frequencies and percentages in pie charts 1, 2, 3, and 4. The findings reveal that 58 per cent of students (lecturers) involved were in possession of doctoral degrees, 33% had Master’s degrees and 8% had completed modules towards the MEd in ODL postgraduate courses. All participants possessed the required qualifications to teach at an ODL institution of higher learning and all were employed at the institution. Fifty-eight per cent had completed the MEd in ODL degree and 25 per cent had completed just the certificate in ODL, while 8% had completed some modules towards the completion of the two qualifications. As indicated, the certificate in ODL was a stage in their process of obtaining an MEd in ODL. The participants’ lecturing experience at the institution ranged from 3 to 28 years. Pie chart 1 depicts 75% of the participants being female, with the male participants’ representation being just a quarter of the overall sample. Pie chart 2 indicates that most of the participants were not very young since most of the participants were between 45 and 55 years of age and constituted about 68% of the group. The rest of the participants were still relatively young, being 45 years of age and below. Of the participants aged between 46 and 55 years, females (75%) were in the majority. The racial distribution indicates that black students (66.7%) were in the majority, followed by white students (17%) in terms of representation. After identifying the demographic characteristics of the participants, all online formative assessment strategies used in the MEd in ODL course were identified before streamlining the demotivating online formative assessment strategies.

### 9.2 Presentation and discussion of students’ experiences

After the exposition to the participants of all the online formative assessment strategies used in the MEd in ODL course, Figure 3 shows the different categories of themes that

were commonly identified by students as DOFAS. Ten participants involved in the interviews were named in codes from MA#1 to MA#10 to protect the direct identification of them in this study. The different categories of the main themes are discussed as participants shared their experiences of DOFAS.



**Figure 3:** Themes of demotivating online formative assessment strategies (Author's own compilation)

### Theme 1: Group activities

Most participants expressed their unhappiness with group assessment strategies because they experienced challenges in adapting to group activities that were required of students in an ODL environment (MA#1, MA#3, MA#4 and MA#5). They asserted that there was no direct relationship between the students who worked hard and the students who did nothing in the group.

As MA#5 stated:

I got into a group of six. We had an activity to carry out some important research and record results, but no one did any work except me. This meant that I had to do the activity on my own. .... we all got the pass mark from my effort. In another one, I didn't do as much work and we all failed. .... I could not report my group members because .... I would not want anyone to report me. But the situation continued until I completed my course.

MA#4 further commented:

Surely, working in a group online is more complicated than working in a face-to-face group, therefore, more time should have been given to us. The deadlines were too tight, and I always never did my role in the group. It also seems no one was bothered by my non-participation.

Most of the participants concurred that they did not know how much they were expected to contribute towards their achievement marks – the minimum amount that a student could contribute in the group was not elaborated on. This led to some students contributing many pages of information while others contributed very little, depending on how much they thought was needed. This implied that students received unfair achievement scores.

Some participants (MA#1, MA#3 and MA#4) agreed that the time given to do assignments in groups was not well managed. Students require time and flexibility for the completion of their tasks. It seems as if course leaders tend to use the “one-size fits all” facilitation approach that does not consider the varying abilities, needs and interest of students.

MA#4 commented:

Surely, working in a group online is more complicated than working in a face-to-face group, therefore, more time should have been given to us. The deadlines were too tight and I always never achieving my role in the group. It also seems no one was bothered by my non-participation.

Participants also mentioned the absence of course leaders in discussion forums (MA#2, MA#3).

Some participants (MA#1, MA#6, MA#7) concurred that groupwork was disorganised.

MA#7 observed that:

Group work in this course is disorganized. I feel that I was just posting ideas to myself. I also never had time to look at and comment on other people's postings... It was obvious that the course leaders did not also follow what was happening in discussion forums. In addition, in most cases no one knew if all students ever contributed to the forum and if so, who.

MA# 1 further commented:

The course leaders do not arrange the groups strategically and therefore fail to monitor their functionality or their progress. I was for some reason always unable to participate in the group activities and yet, the course leader never noticed or perhaps he chose not to notice.

Time management is very important in group work. Largely, the participants commented that many challenges seemed to reduce their interest in group or project activities.

## Theme 2: Digital interactive platforms: Discussion forums, Diigo Annotation, Grid contributions and skill builders

A discussion forum is one area where most participants in the study expressed concern regarding the design of these for productive learning. They expressed concern that domination of active participation in online discussion forums inadvertently de-emphasised the importance of discussions, especially if course leaders paid less attention to the quality of participation (MA#4, MA#8 MA#9'). MA#10 had this to say:

I work and could not post as many contributions as I would have wanted to...it appeared that the interest of the course leader was in the number of postings...I felt that the course leaders should have checked for quality contributions. This was clearly unfair for the hardworking students.

MA#2 further commented:

Our course leaders were rarely involved in the discussion forum apart from the point where they gave us marks. It was not very nice since as students we did our own thing without guidance. I never understood what the purpose of the discussion forums was supposed to be. This demotivated me greatly.

Students also mentioned the absence of course leaders in discussion forums (MA#2 and MA3). This resonates with Anderson (2008) who concurred that when academics contribute to the discussion forums, the students' interaction increases. Even if it is only periodically, it helps to encouraged students to participate.

### Diigo Annotation, Grid contributions and skill builders

A grid or skill builder could be a table, a diagram or a constructed space used to present the ideas. Effective, efficient and engaging learning is a product that is achieved from a combination of factors, of which communication is one of the real major factors in distance education (Kauffman, 2015). According to the participants, the communication platforms that were offered in the MEd course such as *Diigo Annotation*, *Grid Contributions* and *Skill Builders* were not readily accessible and were also difficult to use. Some experiences are shared below.

MA#10, is quoted here,

When you asked me about Diigo Annotation as an assessment strategy, I had already forgotten about it. I leant about diigo platforms for research groups on my own. Even up to now, I do not really understand what it is for.... I thought the role of the course leader was to guide us on what diigo annotation is all about. I did not do that assignment. I almost failed because of it.

MA#2 further comments that:

It was my first time to be involved in grid contributions and skill builders. I did not get the purpose of contributing in a grid. Information was just dumped in the grid and I never went back to use the grid for anything. Some of these things need to be re-thought. I do not think that there was anything to learn from these exercises except to waste my time. Nothing really constructive from them.

Some participants ((MA#2, MA#9) indicated the existence of bully students who dominated the grid contributions within in-group activities and that course leaders seemed to ignore this obvious challenge. They were concerned about the lack of control of cyber bullying in grid activities. Online bullying is a huge problem, especially to students who are not adequately equipped to defend themselves (DHET, 2012).

### Theme 3: Peer assessment

The reluctance to use peer assessment by participants who were themselves lecturers imply that there are more challenges with peer assessment than what is generally thought. This also concurs with participants who said that achievement marks given to them by their peers were not reflective of what they had achieved (MA#3). Students also said they lacked information about how to successfully carry out peer assessments and therefore preferred the course leader to oversee the scoring of their work.

Participant MA#9 commended:

...My colleagues often fell back on correcting punctuation, grammar and unimportant concerns, rather than focusing on the content and context issues. I became very upset ..., I did not even know the colleagues involved.

Furthermore, another participant (MA#1) also expressed her dismay with peer assessment:

Personally, I don't think online learning is ready for the application peer assessment. Students hold extreme ends of emotions. This can lead to them giving you very high marks or very low marks. This is very unfair. It can lead to unnecessary class and student conflicts that can destroy any future collaborative activities in the MED in ODL course.

Students were less optimistic about the current use of peer assessment in online formative assessment. This was due to concerns surrounding the management, validity and reliability of students having the responsibility for awarding grades to their peers in the context of online formative assessments. There seems to be no trust among peers in online formative assessments. There was also mention of peer assessment being vulnerable to being used as an opportunity to cyber bully other students or to make students feel incompetent. This agrees with Leahy *et al.* (2005: 23) who argued that "students should not be giving peer students a grade that will be part of the final assessment".

#### Theme 4: Achievement scores

During interviews, several participants said that lecturers were not fair in the allocation of achievement marks within available rubrics. The most serious demotivating factors mentioned by students was a lack of balance or fairness in the distribution of achievement scores in online assessments. Participants did not understand how the marks were distributed and therefore allocated within the rubric. Participant MA#7 made the following remarks:

What gave me the most motivation to carry on with online formative assessment was the fact that I needed to pass my assignments with a given mark. If they don't give marks in the course during formative assessment, what would be the purpose of doing assignments?

Correspondingly, MA#3 agreed that:

I will work 80% of the times more than the regular days or more than some other times, if I expect that, at some point it will be awarded some marks. I don't care whether its online or not. I still need some marks to know where I am going within my studies.

Students had different interpretations of the scores they earned in online formative assessments. For some, scores meant the extent to which they studied, and therefore translated into hard work and effort. Most participants shared that their primary motivation was to achieve higher marks in online formative assessment so that they would be guaranteed a pass in their courses. Without the awarding of marks by the course leader participants expressed high demotivation. The above discussion implies that formative online assessment can act as a stimulus (behaviourist reasoning) that motivates learning, when rewards (e.g. scores in this scenario) are attached to it (Deci & Ryan, 2012).

#### Theme 5: Digital communication spaces: E-portfolio, blogs and wikis Mind maps and flow charts

Participants recorded quite comprehensive experiences of disadvantages created by the lack of technical skills in the use and access of digital spaces in the MEd in ODL. They felt that the main impediment to working in digital spaces was their lack of technical skills that include the "know-how" to operate in these spaces (MA#10 MA#9).

Participant MA#10 indicated:

I originally could not successfully register for the e-portfolios that we had to use. When I finally managed to register and get into the e-portfolio, more challenges began. There were lots of unexplained keys and instructions which I either never understood or ...I still failed to see how they worked.

Participant MA#1 had this to say:

The e-portfolio was a nightmare as I could not make head or tail of how to use it. I failed it because of the impediment in technical aspects and not because I did not have the information needed for those spaces...I still do not understand what I was doing within that e-portfolio.

Participant MA#7 asserted:

It was my first experience to tweet and blog... and it was not easy for me to use these social media tools. Imagine that I needed to them for learning. When I thought I had mastered the art of using tweets and blogs no student responded to my attempted sharings.

MA#4 confirmed the above problem:

I battled to gain a clear understanding of how to use blogs and wikis in order to complete the set tasks that had been given...There were a lot of technical issues that were challenging in the use of blogs and wikis. that I needed to understand in order to organizing my thoughts. I failed all the assignments and am re-doing the module again.

Most participants wished they had more time to explore the use of the required digital spaces (MA#9 MA#1). Digital and technical support can encourage students to access their learning environments where they can work collaboratively with their peers. In a survey of wiki users by Hester (2010), findings indicated that ease of use and relative advantage were the most important factors that positively influence the use of wiki technology.

## Mind maps and flow charts

A mind map is a diagram that connects information around a central subject while a flowchart represents an algorithm, workflow or process used in analysing, designing, documenting or managing a process and programmes in various fields (Hramiak, 2018). Several participants mentioned that they were not comfortable to work with mind maps or flow charts because of their lack of technical expertise in the construction of these (MA#1 MA # 4, MA # 6, MA # 9, MA # 10). MA#5 responded by saying:

Irrespective of the many types of mind maps and flow charts spaces that I found on the internet they were not easy to access and then it was difficult to construct my own within these examples. I did all my assignments in a trial and error mode. Up to now, I do not know how to utilise mind maps and flow charts for constructive learning.

Participant MA#8 further commented:

As much as there were many advantages given online about flowcharts and mind maps, I did not find them easy to construct. I needed a lot of guidance on how to take best advantage of them.

There is need for the technical and educational support in the use of flowcharts and mind maps in order to appreciate their advantage.

## Theme 6: Using social media

Social media can offer many possibilities as far as online learning is concerned; however, there are noticeable limitations that go with it if students do not know how to use it in the proper way. The inability to work within social media was mentioned by many participants. Participants MA#4, MA#6, MA#9 and MA#10 were very negative about the use of social media for learning as it was not easy to access and work within it for productive learning. Participant MA#6 had this to say:

Sometimes learning and implementation simultaneously is not easy.... My main issue was to learn how to use Instagram WhatsApp and telegram etc. that were new to me. Now learning how to use them for meaningful learning was a difficult additional issue. It never worked for me and I didn't have time to learn it.

MA#5 further had this to say:

I find it very difficult to learn in a social media space like WhatsApp and then concurrently play in the space. We play dirty in these spaces to de-stress. For example, I communicate well with my friends using WhatsApp and telegraph about politics, being tired or being ill. It becomes difficult to ask my friends to show me how to solve a mathematical problem because its simply not a serious space. For me using social media for learning was a total waste of time.

Participants MA#1, MA#3, MA#5 generally thought that adequate orientation and support in the use of social media was not provided to enable them to appreciate the use of the social media spaces for productive learning. Participants did not regard the use of social media as beneficial to their learning as most students thought it was a platform to play. From the results students noted that social media platforms were difficult to exchange for serious learning platforms since there seems to be a thin line between social media for learning and social media for play. Howard and Parks (2012) noted there are still untrue hypotheses on the advantages of social media in research.

## Theme 7: Feedback and Turnitin

Several participants (MA#3, MA#6 MA#7 and MA#10) indicated that the feedback provided was ineffective. Most participants commented that the majority of the course leaders concentrated on language editing.

MA#10 had this to say about irrelevant feedback:

The feedback that was offered to me was mostly superficial. Feedback from a course leader was some given ticks in the assignments. In some cases, I received comments like good, can be improved, not relevant. It was not a reflection of my shortcomings or my needs. So, I stopped looking at it.

MA#1 supported this by saying:

Most of our online assessment was always given language feedback of spellings comas full stops etc. Furthermore, I got comments like 'the sentence is too long', 'this is passive...' 'This is a double negative'. I needed to get comments that would improve the understanding of that part of my study.

Untimely feedback was a common problem identified by participants. Black and William (2009) contend that students learn faster and more effectively when they are provided with the feedback on their current performance. To determine the size of the gap between students'

understanding, action to close the gap must be in the form of relevant feedback that functions to move students toward stated learning outcomes (Timperley, 2013).

Turnitin was not being used as a teaching or assessment tool but just as a plagiarism tool (MA#3, MA#6, MA#10).

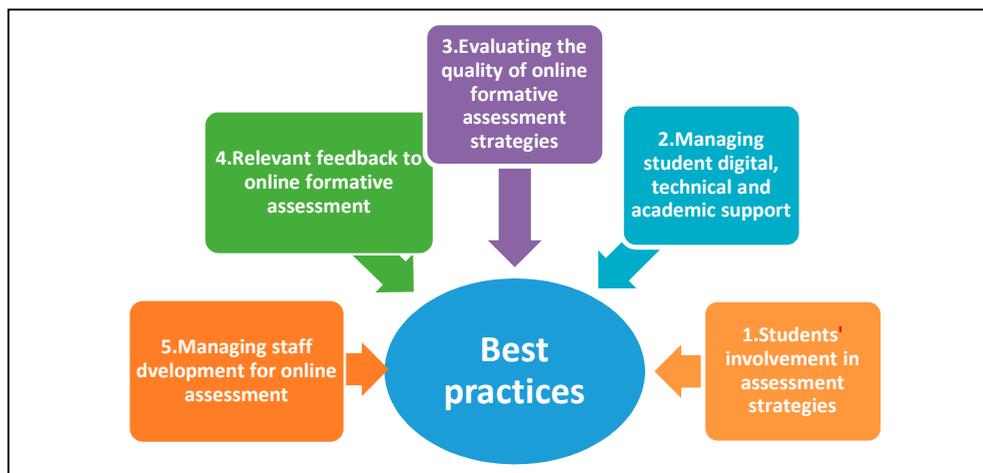
Participant MA#3 commented:

I was excluded from a module because my similarity index % was higher than 30%. It was because I had used many references in that assignment and was therefore punished for that. Many references make your similarity percentage higher. It was those who used less references and did not do a lot of research who gained a lower similarity percentage and therefore passed the module.

Bostock and Taylor (2014) commented that Turnitin must not be used specifically for plagiarism and excluding students from courses but instead could also be utilised to assess students formatively.

### A synopsis of recommendations derived from the interviews

It was not only important that students identified the DOFAS but also that it was important to find out the possibility of improving DOFAS in the MEd in ODL course. During the interviews with the participants, suggestions of possible improvements were categorised into five best practices (Figure 4). Best practice situated in real online environments around students offers a direction for creating effective and efficient online formative assessment strategies. They play an important role in the guidance to quality designs of online formative assessment strategies that do not demotivate students to learn online.



**Figure 4:** Best practices for online formative assessment strategies

- **Students' involvement in the design of assessment strategies**

Students should be afforded a chance to have a say in the type of and design of online formative assessment strategies that they use. Online assessment is moving away from the notion that the student is a passive recipient of information and moving toward the concept that the learning process is active and learner-centred (Yazon, Mayer-Smith & Redfield, 2002). When students have a say in the issues of assessment strategies, then online formative

assessment motivates the students to work (Laurillard, 2002). Students who feel that they are in control of their learning, are motivated, actively participate and take advantage of learning opportunities and resources. Recent studies advocate for including students in developing assessment tools because assessment becomes a mutual activity between students and the course leaders and therefore adds more value to the learning process (Falchikov, 2005; Linn & Miller, 2005).

- **Managing student digital, technical and academic support**

Adequate and ongoing student support is vital for learners to engage productively in the development of self-regulated learning dispositions that are an important requirement for motivation in online learning (Ludwig-Hardman & Dunclap, 2003). E-tutors, sometimes called online tutors, are a crucial part of the learner support system since they drive the interactions, within a learning community in which meaningful, authentic learning takes place. E-tutors encourage active student participation in the class, help students to interpret the tutorial matter and provides a systematic structure for effective learner support. Through ongoing monitoring of learning and provision of adequate formative feedback students are motivated to work. To minimise demotivation to work online, digital support should be offered to students who encounter technical problems such as accessing their teaching and learning environments in which they work collaboratively with their peers. Increased digital support can for example help students learn how to navigate their way through the learning management system (LMS) resulting in better motivated students. Course leaders must give meaningful, timely and valuable feedback supported by well-designed guidelines since it is a critical component of students support.

- **Evaluating the quality of online formative assessment strategies**

There is need to evaluate the quality of online formative assessment strategies that are used in postgraduate courses. This is important to provide designers and course leaders with feedback that could guide them into adapting the new practices aligned to the needs of students for the improvement of DOFAS (Nicholas & Thomas, 2000). Evaluating online formative assessment strategies as learning objects to “determine the merit, worth and value of things, as the products of that process”, is one of the most important quality assurance measures in teaching and learning (Scriven, 1994:1; Nesbit, Belfer & Vargo, 2002). Evaluation must be an ongoing process during any stage in the design or the implementation of the learning object since it focuses on the usability and the pedagogical design of the learning object (Williams, 2000).

- **Managing information and communication technology**

Those who are teaching and learning with online technology must be cognisant of the range of technologies used in the design, delivery, management and support of online distance education. The use of the affordances of ICT must be a conscious design decision by the course leaders to offer possibilities for a more interactive engagement in their design of online formative assessment strategies (McCombs, 2000). The competences and skills that are required for the learner today are different as they include: good communication skills, the ability to learn independently (whatever it means); social skills (ethics, positive attitudes, responsibility); teamwork; ability to adapt to changing circumstances; thinking skills; knowledge navigation (where to get information) and being creative as well as risk takers (Bates & Sangra, 2011). Therefore, there is need to manage information and communication technology. The challenge is to ensure that the technologies selected for building assessment

strategies enable achievement of the goals that have been set for distance education. Providing students with a supportive learning environment as well as user-friendly tools to interact with peers could help them to enjoy and persist with their learning online.

- **Managing staff development for online assessment**

Course leaders themselves must be competent in online spaces and be motivated to do more for their students. Therefore, staff development for online assessment and technology is critical and vital to a collaborative process towards e-teaching and assessment (Oyeleke, 2012) Course leaders in ODL institutions must also be provided with the opportunities to interact and share collaborative ideas through, for example short-term courses, workshops and seminars across universities, provinces, regions or countries for them to be innovative and develop new ideas. Without staff development and without the opportunities to learn how to use the online equipment, course leaders may fail to use online technology in their teaching environment. Occurrences of unethical behaviour associated with online formative assessment strategies should be avoided as those involved with online assessment are unfortunately not immune to unethical practices (Crumbley, Flinn & Reichelt. 2010). The available standards of ethical practice and the issues associated with the implementation of these standards in online assessment should be part of the online assessment practices. Unethical practices demotivate students to persist with online formative assessment.

## 10. Discussion

The aim of this paper was to share the experiences of students with online formative assessment strategies that are demotivating in their learning in a postgraduate course. The focus of this paper was to align online formative assessment strategies with the students' needs in ODL settings. Therefore, through the experiences of students with DOFAS, the paper also examined the challenges regarding the high rates of dropout (called stop-outs in some platforms) that contributed to the low throughput and completion rates at ODL universities in general. The socio technical perspective (STD) serves as the fundamental component to unite all components of the study in framing and supporting the design, facilitation and direction of the online formative assessment strategies and motivational processes. The Self-Determination Theory (SDT) makes distinctions between different types of motivation and the consequences of them.

Results show that in most cases, students shared similar experiences of working with online formative assessment strategies that demotivated them to learn. It must however be noted that online formative assessment strategies can be demotivating through the nature of how they were originally constructed. In many cases the strategies themselves were also specifically demotivating in the way they were managed or set up by the course leaders. This finding of students being demotivated to work in a substantial number of online formative assessment strategies are an indication of challenges facing the university with dropout, completion and throughput rates. There were some good indications from most of the participants that the current practices of online formative assessment provided limited motivation for their learning. These problems are partly related to the design of online formative assessment strategies. In some cases, students had different views about demotivating online formative assessment strategies. However, what was important was the possibility of improving the online formative assessment strategies for the MEd in ODL course. Online formative assessment strategies have the potential to act as powerful tools to support teaching and learning in ODL if they are used in a way that can motivate students to learn online.

Due to the nature of interactivity in online environments among students and the course leader, the need for careful consideration during the design and choice of online formative assessment strategies is key to address students' motivation to learn. Students' experiences in relation to demotivating online formative assessment strategies are important factors in shaping and improving the design and development of online formative assessment. However, it must be noted that the recommendations discussed here are derived from a particular case study of one course at an ODL institution, and they cannot be generalised to other areas of ODL.

## 11. Conclusion

Online formative assessment strategies, though complex within the teaching and learning process, play a role as special and essential components central to online teaching and learning. The study offers guidance, not only to the improvement of online formative assessment strategies but also to those involved in the design, development and implementation of online formative assessment strategies. It provides a prompt for course leaders to examine and reflect on learning and assessment strategies. In probing students' experiences with online formative assessment strategies, this study confirms its potential to raise standards in higher education. Involving students in developing online formative assessment strategies gives more confidence to the students to learn as a sense of ownership is instilled in them.

## References

- Andersson, C. & Palm, P. 2017. Characteristics of improved formative assessment practice. *Education Inquiry*, 8(2): 104. <https://doi.org/10.1080/20004508.2016.1275185>
- Bates, A. & Sangrà, A. 2011. *Managing technology in higher education*. San Francisco: Jossey-Bass/John Wiley and Co
- Barker, A. 2003. Faculty development for teaching online: Educational and technological issues. *Nursing Education Perspectives*, 23(4): 183-186.
- Baxter, G. & Sommerville, I. 2011. Socio-technical systems: from design methods to systems engineering. *Interacting with Computers*, 23(1): 4-17. <https://doi.org/10.1016/j.intcom.2010.07.003>
- Bekele, T.A. 2010. Motivation and satisfaction in internet-supported learning environments: A review. *Educational Technology & Society*, 13(2): 116-127.
- Boud, D. 2018. Assessment could demonstrate learning gains, but what is required for it to do so? *Higher Education Pedagogies*, 3(1): 54-56. <https://doi.org/10.1080/23752696.2017.1413671>
- Brophy, J. 2010. *Motivating students to learn*. New York: Routledge. <https://doi.org/10.1016/B978-0-08-044894-7.00613-8>
- Covington, M.V. 2000. Goal theory, motivation and school achievement: An integrative review. *Annual Review of Psychology*, 51: 171-200. <https://doi.org/10.1146/annurev.psych.51.1.171>
- Crumbley, D.L., Flinn, R.E. & Reichelt, K.J. 2010. What is ethical about grade inflation and coursework deflation? *Journal of Academic Ethics*, 8(1): 187-197. <https://doi.org/10.1007/s10805-010-9117-9>

- Deci, E.L. & Ryan, R.M. 2012. Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R.M. Ryan (Ed.). *Oxford handbook of human motivation* (pp.85-107). Oxford, UK: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195399820.013.0006>
- Erhardt, R.P. 2014. The process of creating a learning-teaching style assessment: A checklist for documenting observations and teaching strategies, *Innovative Teaching*, 3(11): 1-15. <https://doi.org/10.2466/07.IT.3.11>
- Falchikov, N. 2005. *Improving assessment through student involvement: Practical solution for aiding learning in higher and further education*. New York: Routledge Falmer.
- Fisher, D.L., Waldrup, B.G. & Dorman, J. 2005. Student perceptions of assessment: Development and validation of a questionnaire. *Paper presented at the Annual Meeting of the American Educational Research Association*, Montreal, Canada.
- Gikandi, J.W., Morrow, D. & Davis, N.E. 2011. Online formative assessment in higher education: A review of the literature. *Computers & Education*, 57(4): 2333-2351. <https://doi.org/10.1016/j.compedu.2011.06.004>
- Gormley, D.K., Codella, C. & Shell, D.L. 2012. Motivating online learners using attention, relevance, confidence, satisfaction, motivational theory and distributed scaffolding, *Nurse Educator*, 37(4): 177-180. <https://doi.org/10.1097/NNE.0b013e31825a8786>
- Griffin, P., McGaw, B. & Care, E. 2012. *Assessment and teaching of 21st century skills*. London, England: Springer. <https://doi.org/10.1007/978-94-007-2324-5>
- Harandi, S.R. 2015. Effect of eLearning on student's motivation. *Procedia – Social and Behavioural Sciences*, 181: 423-430. <https://doi.org/10.1016/j.sbspro.2015.04.905>
- Heritage, M., Popham, J. & Wiliam, D. 2012. *Distinguishing formative assessment from other educational assessment labels*. Washington, DC: CCSSO.
- Hester, A.J. 2010. Increasing collaborative knowledge management in your organization: characteristics of wiki technology and wiki users. *Proceedings of the 2010 Special Interest Group on Management Information System's 48th annual Conference on Computer Personnel Research on Computer Personnel Research*, Vancouver, BC, Canada. <https://doi.org/10.1145/1796900.1796961>
- Howard, P. N. & Parks, M.R. 2012. Social media and political change: Capacity, constraint, and consequence. *Journal of Communication*, 62(2): 359-362. <https://doi.org/10.1111/j.1460-2466.2012.01626.x>
- Hramiak, A. 2010. Online learning community development with teachers as a means of enhancing initial teacher training. *Journal of Technology, Pedagogy and Education*, 19(1): 47-62. <https://doi.org/10.1080/14759390903579265>
- Kauffman, H. 2015. A review of predictive factors of student success in and satisfaction with online learning. *Journal of the Association for Learning Technology (ALT)*, 23. <https://doi.org/10.3402/rlt.v23.26507>
- Laurillard, D. 2002. *Rethinking university teaching. A conversational framework for the effective use of learning technologies*. London: Routledge. <https://doi.org/10.4324/9780203304846>
- Leahy, S., Lyon, C., Thompson, M. & Wiliam, D. 2005. Classroom assessment: Minute-by-minute and day-by-day. *Educational Leadership*, 63(3): 18-24.

- Linn, R.L. & Miller, M.D. 2005. *Measurement and assessment in teaching*, ninth edition. Upper Saddle River, NJ: Prentice Hall.
- Ludwig-Hardman, S. & Dunclap, J.C. 2003. Learner support services for online students: Scaffolding for success. *International Review of Research in Open & Distance Learning*, 4(1). <https://doi.org/10.19173/irrodl.v4i1.131>
- Mathew, I.R. & Ebeleloanya, J. 2016. Open and distance learning: benefits and challenges of technology usage for online teaching and learning in Africa. *Conference Proceedings & Working Papers Pan-Commonwealth Forum 8 (PCF8)*, 2016 [172].
- McLaughlin, T. & Yan, Z. 2017. Diverse delivery methods and strong psychological benefits: A review of online formative assessment. *Journal of Computer Assisted Learning*, 33: 562-574. <https://doi.org/10.1111/jcal.12200>
- Murnane, J. & Sharkey, N.S. 2006. Tough choices in designing a formative assessment system. *American Journal of Education*, 112(4): 572-588. <https://doi.org/10.1086/505060>
- Nesbit, J.C., Belfer, K. & Vargo, J. 2002. A convergent participation model for evaluation of learning objects. *Canadian Journal of Learning and Technology*, 28(3): 105-120. <https://doi.org/10.21432/T25C8C>
- O'Neil, C.A., Fisher, C.A. & Newbold, S.K. 2004. *Developing an online course: best practices for nurse educators*. New York, NY: Springer.
- Oyeleke, O. 2015 Distance education modes in Nigeria: Students' perceptions and preference. *Journal of the Humanities and Social Studies*, 2(2).
- Pappas, C. 2015. *Instructional design models and theories: Keller's ARCS model of motivation*. Available at <https://elearningindustry.com/arcs-model-of-motivation>.
- Prensky, M. 2010. *Teaching digital natives: Partnering for real learning, first edition*. Thousand Oaks, CA: Corwin Press.
- Sewell, J.P., Frith, K.H. & Colvin, M.M. 2010. Online assessment strategies: A primer. *Journal of Online Learning and Teaching*, 6(1): 297-305.
- Shin, D. 2014. A socio-technical framework for Internet-Of-Things design: A human-centered design for the Internet- of -Things. *Telematics and Informatics*, 31(4): 519-531. <https://doi.org/10.1016/j.tele.2014.02.003>
- Simpson, O. 2013. *Supporting students for success in online and distance education*. New York: Routledge. <https://doi.org/10.4324/9780203095737>
- Timperley, H. 2013. Feedback. In J. Hattie & E. M. Anderman (Eds.). *International guide to student achievement*, (pp.402-404). New York: Routledge.
- University of South Africa (UNISA) 2017. *Open distance-learning policy*. Available at <http://www.unisa.ac.za>.
- Ushida, E. 2005 The role of students' attitudes and motivation in second language learning in online language courses. *CALICO Journal*, 23(1): 49-78. <https://doi.org/10.1558/cj.v23i1.49-78>
- Walker, D.J., Topping, K. & Rodrigues, S. 2008. Student reflections on formative e-assessment: Expectations and perceptions. *Learn, Media Technol.*, 33(3): 221-34. <https://doi.org/10.1080/17439880802324178>

Wigfield, A., Cambria, J. & Eccles, J.S. 2012. Motivation in education. In R.M. Ryan (Ed.). *The Oxford handbook of human motivation* (pp.463-478). New York, NY: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195399820.013.0026>

William, D. & Thompson, M. 2008. Integrating assessment with instruction: What will it take to make it work? In C.A. Dwyer (Ed.), *The future of assessment: Shaping teaching and learning* (pp.53-82). Mahwah, NJ: Lawrence Erlbaum Associates. <https://doi.org/10.4324/9781315086545-3>

Yazon, J.M.O., Mayer-Smith, J.A. & Redfield, R.J. 2002. Does the medium change the message? The impact of a web-based genetics course on university student's perspectives on learning and teaching. *Computers & Education*, 38: 267-285. [https://doi.org/10.1016/S0360-1315\(01\)00081-1](https://doi.org/10.1016/S0360-1315(01)00081-1)

## APPENDICES

### APPENDIX 1: Formative assessment strategies used for the MEd in ODL course

1. Essay writing	2. Assignment writing
3. Group research activity	4. Individual research activity
5. Article writing	6. Google docs
7. Flow charts	8. Twitter
9. Mind maps	10. Wikis
11. Power point	12. Weebly
13. Group based activities	14. Blogs
15. Discussion forums	16. Skype
17. Grid contribution	18. Emails
19. Skill builders	20. Telegraphs
22. Quizzes	21. WhatsApp
24. Audios	23. Instagram
26. Podcasts	25. Awarding of marks
28. Multiple choice	27. Writing coach assistance
30. Professors' videos	29. Self- assessment
32. Summative tests	31. Peer assessment
34. Turnitin	33. Rubrics
36. E-portfolio	35. Learning journal
38. Group based assessments	37. Debating
40. Class feedback	39. Audiovisual
42. PowerPoint	41. Social media(other)
44. Annotated Bibliography	43. Diigo annotation
	45. Continuous tests