



**KAMUZU COLLEGE OF NURSING**

**EXPLORING PERSPECTIVES OF TUTORS ON FACTORS LEADING TO  
NON-USAGE OF FORMATIVE ASSESSMENT AT ST JOSEPH COLLEGE  
OF NURSING IN MALAWI**

**MSC (NURSING AND MIDWIFERY EDUCATION) THESIS**

**By**

**ALICE CHIFUNDO TUKULA**

**JUNE, 2019**

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**BSc. (Community Health Nursing) - University of Malawi**

**A Thesis Submitted to the Faculty of Nursing, University of Malawi in Partial  
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Midwifery Education**

**UNIVERSITY OF MALAWI**

**KAMUZU COLLEGE OF NURSING**

**JUNE 2019**

**Declaration**

I, Alice Tukula, declare that this dissertation titled “Exploring perspectives of tutors on factors leading to non-usage of formative assessment at St Joseph College of Nursing in Malawi” is entirely my own work. This thesis has not been presented for any award at any University within or outside Malawi. All sources that have been used or quoted have been dully acknowledged by means of complete referencing.

Alice Chifundo Tukula

**Legal Name**

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**Signature**

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**Date**

**Certificate of Approval**

The undersigned approve that this dissertation represents the students own work and has not been presented anywhere else.

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**Main supervisor**

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Joseph H.C. Mfuni (M.Ed.)

**Second supervisor**

**Dedication**

I dedicate this thesis to my late dear father Edwin Tukula and mother Harriet Tukula and to my late uncle Duncan Tukula for their respective contributions towards my education; and to my son, Richard Misomali, for his support and encouragement throughout the study.

## **Acknowledgements**

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## **Abstract**

This qualitative study explored tutors' perspectives concerning leading factors to non-usage of formative assessment (FA) at St Joseph College of Nursing in Chiradzulu District in Malawi. The aim of the study was to explore factors leading to non-usage of formative assessments during teaching and learning at the college. The specific objectives of the study were to assess tutors' knowledge of the different types of formative assessments; assess tutors' knowledge on impact of formative assessments on student academic performance; assess tutors' knowledge on good practices of formative assessment; identify tutors' classroom assessment practices in formative assessments; and to identify barriers to effective utilisation of formative assessment. A purposive sample of 15 tutors was involved, with fifteen (15) in-depth interviews conducted and data was analyzed manually using content analysis. Results of the study revealed key issues of formative assessment. For example, while participants displayed little knowledge about types of formative assessment, the assessment emerged as a tool for improving learning because it helps learners to establish whether or not content taught in class has been grasped. Results further indicated that tutors are knowledgeable about good practices of FA. Practices such as conducting frequent assessments, giving timely feedback, and using a variety of assessment strategies were reported as good practices in assessment. Results also indicated that St Joseph College tutors do not frequently assess learners in class and that; large classes, inadequate time and inadequate teaching resources are factors that hinder tutors from using formative assessment in the classroom. Based on the results, it is recommended that continuous professional development trainings should be done for tutors to understand formative assessment and its impact on student learning.

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## **Abbreviations and Acronyms**

<b>CA:</b>	Continuous Assessment
<b>CHAM:</b>	Christian Health Association of Malawi
<b>COMREC:</b>	College of Medicine Ethical and Research Committee
<b>FA:</b>	Formative assessment
<b>FFA:</b>	Formal formative assessment
<b>IFA:</b>	Informal formative assessment
<b>KCN:</b>	Kamuzu College of Nursing
<b>I-TECH:</b>	International Training and Education Centre for Health
<b>NMT:</b>	Nursing and Midwifery Technician

## **Definition of terms**

- Assessment:** A continuous planned process of identifying, gathering and interpreting information about students' performances. This process requires teachers to use a variety of assessment strategies that allows provision of appropriate feedback to students.
- Continuous assessment:** Accumulation of grades from different class activities over a period of time and using these marks to decide learners end of semester or year grades.
- Effective feedback:** Feedback that describes and tells the learner what was done well or wrong and suggests ways for improvement.
- Feedback:** Discussion between a teacher and learner where learners are informed of their performances in both formal and informal situations.
- Formative assessment:** All assessments done in a classroom to assess whether learning is taking place or not. The assessments are mainly for practice. However, the teacher can decide to grade them or not.
- Learning:** Acquisition of or construction of knowledge. The tutors' role is to help learners to learn by providing opportunities for learning.
- Teacher /tutor:** A person whose job is to teach others. These words are used interchangeably.
- Teaching:** The process where teachers impart new knowledge, attitudes and skills to the learners.

## **Chapter 1**

### **Introduction**

#### **Introduction**

Assessment is a vital yard stick for measuring learners' changes in knowledge and skills (Suskie, 2009; William, 2013). According to Peterson (2008) assessment can either be formative or summative. Formative assessment is a process that takes place continuously during the course of teaching and learning with the aim of providing teachers and students with feedback to close any gaps that may exist between current learning and desired goals. This implies that formative assessment is an on-going activity, and a planned practice that allows teachers to assess learning after teaching (Kubszyn & Borich, 2010; Rushton, 2005; Waugh & Gronland, 2013). Formative assessment takes place throughout the instructional process.

The purposes of formative assessment are threefold; checking for learning progress, diagnosing students' strengths and weaknesses, and checking for misconceptions that arise during instruction (Koh, 2010; Peterson, 2008; Suskie, 2009; William, 2011). Formative assessment facilitates immediate remediation and corrective action. In contrast, summative assessment is assessment which measures the achievement of learning goals at the end of a course or semester (Kubszyn & Borich, 2010; Mpapalika, 2013; Peterson, 2008; Suskie, 2009). This assessment is used to summarise students' achievements in order to certify them in a certain way (Kubszyn & Borich, 2010). A student is ranked or promoted to a higher class using summative assessments.

Formative assessment can be formal or informal (Koh, 2010; Miller, Linn, & Gronland, 2009). Formal formative assessment (FFA) is that which is administered with reference to a specific curricular assessment framework (Yorke, 2003). A student does the work and a teacher or a supervisor assesses the work and provides feedback from which the student can learn during or at the end of a lesson. Formal formative assessment may use tools such as assignments, tests, quizzes, projects, group presentations and reports (Koh, 2010; McCain, 2006; Miller *et al.*, 2009). In contrast, informal formative assessment (IFA) takes place during instruction and is not specifically stipulated in the curriculum (Yorke, 2003). For an assessment to function formatively, its results should be used to adjust teaching and learning (Guskey, 2008; William, 2013). This means that a student uses feedback to improve in subsequent performances while a teacher uses feedback to improve instruction. However, utilisation of formative assessment in the classroom may be affected by certain barriers, namely teachers' lack of knowledge, large classes, and inadequate resources (Brownie, 2016; Hares, 2013; DeLuca, Luu, Sun & Klinger, 2012; Mpapalika, 2013). It is against this background that this study explores factors that hinder usage of formative assessment in the classroom which inform future teaching and learning.

### **Background of Study**

Internationally, (Koh, 2009) in the United Kingdom reported that teachers use a variety of formal and informal formative assessments in the classroom. In Africa, Malawi is among the countries that incorporated the concept of formative assessment in their education curricular (Hares, 2013). Consequently, the Nursing and Midwifery Technicians curriculum uses FA in its assessment strategies (Christian Association of Malawi, 2011); hence the expectation that FA is conducted during the process of teaching student nurses. Tveit, Wasili, Kollstrom and Mwenye-Phiri (2009) notes that, in Malawi teachers in CHAM nursing

colleges use various forms of assessment in the classroom such as quiz, multiple choice, assignments and oral tests in addition to written examinations. Sometimes assignments are assessed and marks are sometimes awarded as a contribution towards continuous assessment. However, Tveit *et al.* (2009) observed that in some theoretical courses students are allowed to write end of semester examinations without FA. Furthermore, the authors observed that, in Malawian CHAM colleges, testing and formative assessments are haphazard and that the ways students are assessed is often linked to the way students work and spend their time studying. Regarding students' assessment experiences, the authors report that students in the CHAM colleges are on record that they requested to have formative assessment in all courses to give them room for improvement upon getting continuous assessment feedback. Lastly, they noted little interaction between students and teachers during lessons, with lecturing dominating classroom teaching methods. This is supported by Hares (2013) who also noted that there is little or no on-going student assessment in Malawian schools.

Mpapalika (2013) and Hares (2013) indicate that teachers have difficulties to put FA into practice because they consider it an additional workload. In addition, congested nursing curriculums make it difficult to cover all content areas and assess continuously (Duers & Brown, 2009; Tveit *et al.*, 2009). However, Hares (2013) states that non-usage of FA does not only hinder learning but it also continues to promote the use of teacher-led rote learning styles in the classroom where teachers teach to test, thereby hindering quality education provision. It is against this background that this study explored tutors' perspectives on leading factors to non-usage of FA in their classrooms at St Joseph College of Nursing.

### **Problem statement**

Formative assessment is highly regarded by academia as a tool for improving learning processes and as a feedback mechanism. However, Hares (2013) notes that teachers move

from one unit to another without establishing whether learners have understood the previous lesson. A similar situation prevails in CHAM nursing colleges, including St Joseph College of Nursing. Tveit *et al.* (2009) reports that in CHAM nursing colleges, 'teachers do not give formative assessments in all theory courses and that the teachers spend most of their teaching time lecturing and without showing willingness to conduct effective formative assessments due to inadequate knowledge and adherence to traditional teaching styles. Furthermore, anecdotal evidence shows that FA is rarely conducted in the classroom at St Joseph College of Nursing. Tutors administer mid-semester examinations as a college requirement from where the 40% continuous assessment grade is obtained. It is in this context that the researcher saw need to explore perspectives of tutors at St Joseph College of Nursing for non-usage of FA in the delivery of theory courses.

### **Aim of the study**

The aim of the study was to explore factors leading to non-usage of formative assessments during teaching and learning at St. Joseph College of Nursing.

### **Specific objectives**

The specific objectives of the study were to:

1. Assess tutors' knowledge of the different types of formative assessments.
2. Assess tutors' knowledge on impact of formative assessments on student academic performance.
3. Assess tutors' knowledge on good practices of formative assessment.
4. Identify tutors' assessment practices in formative assessments.
5. Identify barriers to utilisation of formative assessment.

**Significance of the study**

The study will inform tutors on the impact and good practices of formative assessment. It is hoped that based on the study's results, tutors will identify gaps that exist in giving formative assessment and feedback to students, and generate insights that could assist with implementation of strategies to enhance students' learning. Findings from this study will also assist tutors in designing better mechanisms to provide constructive and timely formative assessment feedback to students. In addition, the study will add to the body of knowledge in classroom formative assessment in nursing education.

## **Chapter 2**

### **Literature review**

#### **Introduction**

This chapter presents a review of literature related to formative assessment (FA). The literature focuses on the description of FA, impact of FA, types of FA, FA practices, factors that hinder utilisation of FA. In addition, the chapter reviews existing relevant studies about formative assessment and feedback in nursing, healthcare education, and education in general.

Electronic databases such as Google Scholar, EBSCOHOST, Education Resource Information Centre (ERIC), Academic Search Premier, HINARI and Pub Med were used to search for relevant literature. Additional information from printed materials such as books and journals was also accessed. The review concentrated on research articles that were published between 2006 and 2016. However, some old articles are included because of their special significance to this research. Databases were searched using the following keyword terms: classroom assessment, student assessment, classroom feedback, feedback and education, classroom formative assessment and nursing education and formative feedback. Papers that described the concepts assessment, formative assessment, perceptions or views of teachers on assessment and barriers to implementation of FA were also selected for review. The selected literature on formative assessment feedback in general and relating to nursing education was drawn together to guide practice aimed at enhancing the learning of nursing students.

#### **Overview of formative assessment**

Formative assessment is a process through which classroom assessment elicited evidence of learning is gathered and instruction is modified in response to feedback (Cauley

& McMillan, 2010). As the definition suggests, FA is intended to provide feedback and to enhance learning while learning is occurring. Chappius and Chappius (2008) argue that when a student's assessment is purely for formative purposes there is no final grade or summative grade on the paper and the assessment is mainly used for practice purposes. Taras (2005) emphasises that formative assessment can be uniquely summative if the assessment stops at judgement. This means a formative assessment become summative when a student is awarded a grade without any supportive feedback that could have otherwise enabled them to improve in their subsequent performances. Assessment can be formative only when it is used to improve future learning or classroom instruction (Guskey, 2008; Mpapalika, 2013). This condition is met only when an assessment meets certain conditions. For example, a formative assessment must offer timely high quality feedback to a student, indicate areas of strengths and weaknesses and suggest how the student can improve performance in subsequent assessments. Therefore, if a student does not get any feedback for an assignment or mid semester examination formative assessment has not taken place, a conclusion that is well supported by Organisation for Economic Co-operation and Development OECD (2005).

Literature highlights that in most of Africa's institutions of learning FA is used synonymously with continuous assessment as a series of accumulative summative assessments (Mpapalika, 2013; Perry, 2013). This brings confusion regarding how FA is interpreted and implemented. Njabili (1985) cited in Mpapalika (2013) defines continuous assessment (CA) as a process which involves the systematic collection of a learner's marks or grades by the teacher over a period of time so as to use the consolidation of these marks or grades to decide a learner's final grade. Marks are obtained from assignments, quizzes, tests and projects done by learners. However, the problem with Mpapalika's (2013) definition of continuous assessment is that it emphasises that CA is about obtaining marks from different

class activities throughout the course of study. The challenge is that definitions of both FA and CA conceptualise FA and CA as being carried out throughout the course of study regardless of the fact that they serve different purposes.

### **Effects of formative assessment on student learning**

Several researchers concur that FA has a positive impact on students learning; it improves learning and gives students effective and supportive feedback (Black & William, 1998; Carrillo-de-la-Pena, Bailles, Caseras, Martinez, Ortet & Perez, 2009; Jacoby, Heugh, Bax & Branford-White, 2014; Mpapalika, 2013; Weurlander, Soderberg, Schejac, Hultb & Wernerson, 2012). In a meta-analysis of 250 studies that focussed on impact of formative and summative assessments, Black and William (1998) found that FA experiments produced more powerful effect on students' learning than did summative assessments. It was therefore concluded that FA is an effective key to improving teaching and learning as well as thinking capabilities and academic achievements. FA provides valuable feedback that can be used to adjust teaching and learning tasks in the classroom. Thus, given that FA provides the opportunity to improve teaching, learning process and valuable feedback, failure to provide formative assessment may lead to less feedback. Furthermore, the unavailability of FA may hinder both teachers' identification of students' misconceptions, insertion of correct information and effectiveness of classroom instruction.

Jacoby *et al.* (2014) studied enhancing learning through formative assessment at London Metropolitan University in the United Kingdom. Students were given self-assessments weekly tests and two summative progress tests in a Biology module. Results from 280 student questionnaires indicated that 80% of the students found the weekly tests helpful and the number of students getting higher marks increased approximately by 20%, especially by migrating into grade A of achievement. The study further indicated that FA

produces an increase in student study time, increases familiarity with learning materials, and can introduce the student to the style of summative examination material they will meet in future. This increases confidence and familiarity with the testing process. In line with these findings, Kapambwe (2010) observes that teachers must provide a learning environment which is conducive to effective learning. The provision of conducive learning environment could be achieved by providing opportunities that allow students to construct knowledge from what is covered in class in a safe environment.

In Spain, Carrillo-de-la-Pena *et al.* (2009) studied the extent to which participation and performance in FA is associated with positive academic outcomes of pre-graduate students of health sciences. A total of 548 students from 4 Spanish Universities were involved in this quantitative study, and results showed that students who took part in the mid-term FA achieved higher marks in the final assessment than those who did not. This implies that success in FA tests was associated with better summative marks. Students sat for mid-term examination and received feedback about their achievement which determined their greater involvement in the learning process. Chappius and Chappius (2008) argue that value of FA lies in teachers and students making use of assessment results to improve real time teaching and learning at every turn. To this end, teachers and students should use evidence from FA to make necessary changes and improvements that yield immediate benefits to student learning.

A study undertaken by observers of the Organisation for Economic Co-operation and Development (OECD) on the use of FA in eight educational systems (Australia - Queensland, Canada, Denmark, England, Finland, Italy, New Zealand and Scotland) further proved that formative assessment is highly effective in raising the level of student attainment, increasing equity of student outcomes and improving students' ability to learn (OECD, 2005). In

addition, Brown, Kennedy, Fok and Chan (2009) affirm that FA supports students' achievement in SA. Results from their quantitative study of 374 completed self-administered questionnaires examining the conceptions and practices of FA among primary and secondary teachers in Hong Kong revealed that majority of teachers believed that assessment supported learners' achievements in summative assessments. These findings imply that students benefit from FA and can perform better in summative assessments if they are assessed frequently and given feedback. Formative assessment allows students to construct their own knowledge from the material that they have learnt and allows them to be acquainted with the style of testing. It also promotes student engagement with learning activities thereby enhancing learning.

Similarly, a quantitative study involving 548 Spanish pre-graduate students of health sciences conducted by Carrillo-de-la-Pena *et al.* (2009) also revealed that failing in FA was not a predictor of examination failure; a majority of students who participated in FA and failed the formative test were successful in summative examination. This finding is consistent with Rushton (2005) who identified feedback as a core element of FA. In support of the findings by Carrillo-de-la-Pena *et al.* (2009), Black and William (1998) confirmed that use of FA results helps low achieving students to a greater degree than other students. This means that failure in FA provided students with feedback on where they went wrong and informed the students on areas which needed improvement. Therefore, if students receive feedback and, in turn, use it they are unlikely to repeat the mistakes they made in the assessment. Therefore, this study supports the role of FA and feedback in student learning.

In Sweden, Weurlander *et al.* (2012) conducted a quantitative study which explored students' experiences of different methods of formative assessment. A cohort of 70 students was involved and written accounts were collected from 17 of the students. Two different formative assessment methods, namely an individual written assessment and an oral group

assignment were used. Results indicated that FA motivates students to learn and study, and makes them aware of what they have learned and where they need to study more. It was therefore concluded that FA functions as a tool for learning that contributes to the process and positive outcomes of learning. Ruland (2011) reported that FA makes students have control over their learning and that through the FA students can learn more by reading more. This signifies that operant conditioning works in teaching and learning. A student's proper behaviour or response is reinforced through the test for which he or she is studying.

A quantitative and qualitative study conducted on Tanzanian Science teachers' regarding practices and challenges in continuous assessment by Mpapalika (2013) in Secondary Schools revealed that CA has significant impact on the final examination. In the study, fifty participants completed a questionnaire about challenges, six took part in semi-structured interviews, and three were involved in classroom observation. Seventy six percent of the teachers confirmed that learners with high CA marks do pass highly in final examination. This could be attributed to the extra effort made by students in order to maintain their level of achievement as nobody would want to fail after getting better marks. FA, therefore, plays a motivation role in student learning.

Contrary to the above findings, Hernandez (2012) in Ireland conducted a study examining if continuous assessment supported learning using qualitative and quantitative approach. The study used semi-structured interviews and questionnaires and its results revealed that continuous assessment put more pressure on academics to give marks for FA and more pressure on students. Some participants indicated that too much continuous assessment could result in an assessment overload and student anxiety about grades. Furthermore, the results indicated that giving feedback is a labour intensive activity, especially, when a large number of students are involved. This means that with increased

classroom enrolment, FA practices may be ineffective as teachers are not able to mark several scripts at the same time and give feedback to students accordingly.

Other, contradictory views about the value of formative assessments were reported in by Koh's (2010) qualitative study that was conducted in the UK on academic staff perspective of formative assessment and feedback in theory courses in nurse education. The study which involved twenty teachers used semi-structured interviews and it found that the teachers perceived students as undervaluing FA and only being interested in their SA. Furthermore, the study found that FA is a burden and given a chance most students would wish not to have it at all. Similarly, Duers and Brown (2009) UK qualitative study explored experiences of 14 student nurses regarding formative assessment using focus group discussions and its findings concurs with Koh's; it reported that nursing student preparation and effort is greater when assessment is for summative purposes as opposed to formative purposes. However, Black and William (1998) argue that there is no any other way of improving students' academic achievement except using FA. Therefore, students need to change their attitudes towards FA and take multiple opportunities to demonstrate success. FA will offer learners opportunities to learn from their mistakes and to perfect their learning (Wheatley, McInch, Fleming & Lord, 2015).

Similar, findings were reported in a quantitative study by Mayya (2010) which, using a self-report questionnaire, explored the extent of practices of formative assessment of 57 faculty members in India's Health sciences education. Results of the study showed that students seldom have adequate information on how well they are performing due to lack of assessments. Thus, in the absence of FA, it would be difficult to track learners' progress and, consequently, learners would not know whether or not their learning goals are being achieved. As already noted by most studies reviewed in this chapter, FA influences students'

motivation to study and makes them aware of what they had learned thereby functioning as a tool for learning. Put differently, non-usage of formative assessment yields little or no meaningful results regarding maximisation of learning among students and regarding contributing to nursing education in general owing to absence of motivators that make learners to study and work hard. Although most of these studies were conducted in other types of education their results can inform nursing education, especially, at a time when the nursing curriculum is indicates need for formative assessment.

### **Classroom formative assessment practices**

FA can be formal or informal (Cauley and McMillan, 2010; Koh, 2009; Perry, 2013). Research-based evidence shows that formal and informal formative assessments are used in many classrooms (Cauley and McMillan, 2010; Koh, 2009; Mpapalika, 2013; Perry, 2013; Ruland, 2011), and examples of formal FA are quizzes, individual written assignments, individual and group presentations, group work, projects, and peer and self-assessment. In contrast, informal FA is done through oral questioning, observing learners, getting learners to draft their work first, and feedback comments (Perry, 2013).

Koh (2010) conducted a qualitative study about academic staff perspectives regarding formative assessment in nursing education United Kingdom which established the prevalence of formal and informal assessment in class. The study, which utilised focus group discussions of 20 teachers, identified a variety of formal and informal assessments used in the classroom, namely individual and group presentations, multiple choice questions on paper exercises, personal development plans, tutorials on essay plans and discussions. Furthermore, the study indicated that formal FAs are specified in the time table and are aimed at preparing students for SA, which suggests that formal assessments are embedded in the curriculum.

Hernandez (2012) investigated the extent to which continuous assessment facilitates learning and to challenges faced by undergraduate students of Hispanic studies and teaching staff in seven universities in the Republic of Ireland using both quantitative and qualitative approaches. The study recruited 41 teachers and 180 students who filled questionnaires. In addition, seven teachers, one from each university, also participated in semi-structured interviews. The findings indicated that teachers use individual assignments, oral individual presentations, written exercises and class tests to provide students with feedback. However, 25.2% of students expressed dissatisfaction with the practice of giving grades on every assignment considering that if a student fails one exercise the failing grade will negatively affect his/her final grade, especially where the grade obtained during FA contributes to the final grade. This observation echoes an assertion by Britton (2011) cited in Jacoby *et al.* (2012), namely that not all assessments should contribute to the final summative grade but can be used for self-assessment formatively. In contrast, however, Clover (2004) cited in Duers and Brown (2009) argue that apart from the fact that students pay little attention to ungraded tasks, students' commitment and effort is greater when the assessment is summative rather than formative. Thus, students may not take formative assessments seriously if they are not graded considering that they place more value in SAs. Unsurprisingly, Peterson (2008) argues that although FA does not have to be graded, teachers need to understand that they have the responsibility to arrange that FA contributes to a unit's or a course's final grade based on existing need(s).

Another study by Mpapalika (2013) investigated teachers' continuous assessment practices and challenges in Tanzania at three secondary schools using the mixed methods approach. Teachers' practices were elicited from fifty participants while the challenges were elicited from classroom observation based on three teachers and through semi-structured interviews involving six teachers. The study's findings revealed that marks and grades were

being collected from homework, practical assignments, quizzes, tests, and projects done by learners and mid semester examinations. In other words, these assessment techniques can be used as FA if the assessment techniques provide learners and teachers with immediate feedback in an effort to improve learning.

Ruland (2011) clarifies that FA is not limited to formal tests, quizzes or homework; it includes portfolios, journals, dialogue, questioning, interviewing, formal testing and projects from which teachers can get evidence about a student's learning. Actually, Black *et al.* (2003) cited in Iileka (2010) argue that teachers should use a variety of assessment techniques such as quizzes, oral questioning, observing learners, and getting learners to write rough drafts of their work first, to think aloud, to use learning logs, to construct concept maps and to make portfolio reflections. Put differently, a variety of assessment techniques should be used to assess teaching and learning.

Mayya (2010) explored the extent of practices of formative assessment in Health Science Education involving 57 educators of a South India University through a quantitative study. The study reported that teachers gave monthly tests at the end of each unit or topic and at the end of the semester with some facilitating peer and self-assessment as part of classroom formative assessment. Mayya (2010) further emphasised that students' peer and self-assessment were important in student learning as they made students aware of their understanding and provided evidence to use in comparison with their own work. This point is supported by Shepard (2000) cited in Iileka (2010) who explains that peer and self-assessment promote cognitive development and raise students' responsibility in self-monitoring their own and other's learning and that it builds stronger relationships among learners. However, Duers and Brown's (2009) exploration of student nurses' experiences of formative assessment in the United Kingdom found that nursing students are unprepared for

the critical feedback from their peers. Whilst other students support the use of peer assessment as a method that is formative, others place lower value on peer feedback compared to the greater value placed on feedback from teachers (Koh, 2010).

Another quantitative study conducted by Ndalichako (2013), using 4160 questionnaires to examine classroom assessment practices of Tanzanian secondary school teachers found that frequently used classroom assessment methods include class exercises, homework, quizzes, tests and observation. Similarly, another study by Perry (2013) which reviewed FA practices in some of Africa's institutions of higher learning and it reported that as part of cumulative continuous assessment teachers use a variety of formal formative assessment practices such as assigning projects to students, giving written comments and asking students to redo their assignments.

### **Examples of formative assessment**

#### **Quiz**

Quiz is mainly given in form of a paper - based exercise and is done in a classroom (Waugh & Gronlund, 2009; Koh, 2009). A quiz can be given in form of multiple choice, or true or false questions and can be administered on a daily, weekly or monthly basis. Students are tested using a quiz after a learning session to guide their future studying, and literature indicates that regular quizzing can improve grades and comprehension of material (Marcell, 2008; Parameswaran, 2013). Parameswaran (2013) actually observes that regular quizzing calls for regular study hours and provides a more focussed review of content, meaning that quizzes keep students engaged in the classroom. However, a quiz is most effective when students are provided with response specific feedback (Peterson, 2008).

## **Individual assessment**

Individual assessment can be given as a written assignment in form of essays; tests and questions that require short answers (Mayya, 2010). Individual assessment influences the students' learning process by compelling a student to explain his or her thoughts in writing. Furthermore, it informs the student how much he or she knows or does not know (Brown, Kennedy, Fok, Chan, & Yu, 2009). Weurlander *et al.* (2012) conducted a study aimed at exploring Swedish students' experiences of different methods of formative assessment in a pathology course and established that individual assessments such as unit tests affect the amount of time students spend studying. Students reported that they would not have spent much time studying if they were not given individual formative assessment. Similarly, Marcell (2008) asserts that end of unit tests help students maintain a regular study schedule.

In another study, Roediger and Karpenicke (2006) confirmed that tests enhance later retention of information rather than additional study material, thereby enabling individual learners to study more and to familiarise themselves with the content at hand. The study also noted that individual assessments such as essays assess comprehension of material make sense when one considers Weurlander *et al.*'s. (2012) observations that questions requiring short answers or few words or sentences are useful in assessing recall of knowledge despite encouraging rote learning. It can, therefore, be concluded that individual assessment can help improve a student's performance because it equips students with ability to know their level of understanding in relation to set goals and improve their study habits.

## **Individual and group presentations**

Research has shown that presentations are crucial in facilitating learning (Weurlander *et al.*, 2012). In effective presentations, teachers identify learning activities, allocate them to

students and give them time and resources to use for conducting a given presentation and the learner, in turn, present findings of learning activities. These individual and group presentations help teachers to assess students' application of knowledge and use of evidence to support and justify their answers (Koh, 2010). Teachers also use presentations to assess both the quality of information collected by students and its presentation. This means when students present their findings, teachers are informed of both students' application of knowledge and use of evidence. Therefore, despite being time consuming, individual and group presentations influence students' motivation to study.

### **Group work**

Group work is useful in assessment of learning because it requires students to be placed into small groups which encourage them to share ideas about a given topic. The work produced through group work is marked and an overall group mark which is for all group members is awarded (Koh, 2010). A study by Weurlander *et al.* (2012) about Swedish students revealed that students learn from each other through group assignments. In addition, group work enables students to learn to express themselves thereby improving communication and social interaction (Parameswaran, 2013) although some students tend to fear to express themselves during group work for fear of disclosing their lack of knowledge about the subject at hand (Weurlander *et al.*, 2012). Another challenge with group work is that, it is difficult to establish criteria for assessment and to address the need to grade each student fairly in order to combat the possible problem of freeloaders in the group (Parameswaran, 2013). It is, therefore, recommended that teachers should give individual tasks to address problems about imbalanced contribution in group work.

## **The One-Minute Paper**

One minute paper assesses knowledge recall, understanding, and reaction to course material (Peterson, 2008). During one-minute paper assessments, the teacher asks students to briefly answer the following questions in writing: What was the most important thing you have learned during this class today? What important question remains unanswered or what are you still confused about? The responses can be collected individually or in groups and they allow teachers to assess whether learning goals have been achieved or not, thereby informing ways of improving instruction during the next class (Regier, 2012). The one-minute task can be used in small and large classes and is ideal for courses which provide students with new information on a regular basis (Peterson, 2008).

## **Think-Pair-Share**

Think-pair-share strategy helps the teacher to gather information about students' level of understanding. Peterson (2008) explains that a teacher poses a question to students and gives them time to think about the question and to jot down some points individually. Then the students pair up by turning to the person sitting next to them and discuss with them their response. Thereafter, the teacher randomly calls on students to share their ideas to the whole class (Regier, 2012). Considering that students speak to the whole class after discussions, they are able to share ideas, to learn from each other, and to participate actively in class (Parameswaran, 2013). The challenge, however, is that it is difficult to formally assess individual students using think-pair-share strategy.

## **Peer assessment**

Nicol and Macfarlane-Dick (2004) emphasize the need for students to be empowered as self-regulated learners and suggest that self and peer evaluation is beneficial to student learning. Peer assessment involves assessment by peers using established criteria. Students assess the work of their classmates and provide feedback about what they observed (Regier,

2012). This is achieved by allowing students to exchange, mark and correct a fellow student's paper. Then the students are allowed to discuss the answers after they have corrected each other's papers (Mayya, 2010). This method encourages students to engage with their learning more directly (Nicol & Macferlane-Dick, 2004). Teachers should, therefore, encourage learners to check each other's work before handing it in thereby encouraging learners develop a culture of assisting each other and producing better quality work. Significantly, research by Duers and Brown, (2009); however, found that nursing students are unprepared for the critical feedback from their peers.

### **Self-assessment**

Self-assessment involves students identifying their own areas of strengths and areas for improvement and setting goals (Regier, 2012). Research evidence shows that students mark their own paper and the teacher remarks the same paper and gives feedback (Mayya, 2010). Students also write key points they have learned and questions they still have in a response log at the end of the lesson. Shepard (2000) cited in Vaishali, Vandana and Shubho (2012), notes that self-assessment raises students' responsibility in self-monitoring of their own learning.

### **Examples of Informal formative assessment**

Informal formative assessment (IFA) is done through questioning, observation and class discussion including immediate feedback during a learning activity (Akom, 2010; Ieleka, 2010; Perry, 2013). IFA may reveal the need for remedial work, a complete review of the material, and misunderstandings that must be corrected immediately (Miller *et al.*, 2009). The commonly used informal FA are oral questioning and observing students as they work (Akom, 2010; Iileka, 2010; Leahy, Lyon, Thompson & William, 2005; Mayya, 2010; Perry, 2013; Ruland, 2011).

### **Classroom observation**

Classroom observation enables teachers to conduct assessment in a natural environment (Ndalichako, 2013). Observation can be conducted through formal or informal means, such as through observing students' behaviour in the classroom or while they are performing a given activity (Perry, 2013). This may reveal the need for immediate remedial work. Through close observation of students in the process of learning, classroom teachers will get insight into students' misconceptions and abilities that may not be accurately represented through other formal assessments.

### **Questioning**

Questions are important in classroom interaction. Questioning conducted at the beginning of a lesson assesses prior knowledge while when conducted at the end of a lesson, check learners understanding of content taught (Akom, 2010). Literature further indicates that questions allow teachers to identify gaps in learners' understanding arousing interest and motivating learners to participate in class discussion (Iileka, 2010; Parameswaran, 2013). The questioning technique should, therefore, be used daily in the classroom to assess understanding and encourage participation.

### **Barriers to usage of formative assessment**

Literature indicates that, worldwide, use of formative assessment is affected by various factors, namely time factor, large class, lack of both knowledge and teacher commitment (Al-Wassia, Hamed, Al-Wassia, Alafan & Jamjoom, 2015; Brownie, 2016; Chur-Hansen & McLean, 2006; Herna'ndez , 2012; Irons, 2007; Kapambwe, 2010; Mpapalika 2013; Neosom (2000) *cited* in Walani, 2009; Walani, 2009).

### **Time factor**

A study carried out by Kapambwe (2010) on implementation of school-based continuous assessment in Zambia cited lack of time as a reason for being unable to provide

formative assessments to students. Another study by Al-Wassia *et al.* (2015) which explored challenges that hinder implementation of FA in Saudi Arabia using qualitative and quantitative approaches reported that time constraint hinders implementation of FA. In the study 142 students and 24 faculty members' filled questionnaires whose analysis revealed that time constraint and the need to balance academic responsibilities affect implementation of FA.

A study by Quyen and Khairani (2016) which reviewed twenty one articles concerning challenges of implementing FA in Asian classrooms revealed that FA is time consuming and increases teachers' workload. Similarly, Neosom (2000) *cited in* Walani (2009) affirms that FA is time consuming while Perry (2013) observes that time limitation significantly affects implementation of FA in Africa. Particularly, she further noted that most teachers fear that they would not complete the syllabus if FA were implemented because they perceived FA to be time consuming when contrasted with SA. This means time factor affects teachers' use of FAs and that teachers are only interested in covering the content, consequently, hampering students from getting adequate feedback during the learning process. Furthermore, teachers tend to be too late to discover that learning did not take place.

### **Large classes**

Literature indicates that it is difficult to give formative assessment and feedback to large classes within short time available in a semester (Walani, 2009). Herna'ndez (2012) study aimed at establishing whether continuous assessment in higher education supports student learning in Ireland also reported that large class sizes are barriers to effective formative assessment and feedback. Similarly, Perry (2013) observed that class size and time limitation were some of the challenges that negatively affected the use of FA in Africa. In line with this finding, a mixed methods study conducted by Mpapalika (2010) on practices and challenges faced by Tanzania's science teachers regarding continuous assessment

revealed that high workload and large class sizes affect use of FA. Similarly, in Asia, Quyen and Khairani (2016) revealed that large classes hinder the implementation of FA in the classroom, and that teachers need more time and attention to give feedback. These findings concur with observations made by Kapambwe (2010) in Zambia where large class sizes and time spent on FA were observed to have negative effect on its use. From these studies, it can be concluded that large classes tend to hinder teachers' use of FA, consequently affecting teaching styles and students' involvement in the learning process negatively. It is also clear that large classes make it difficult for a teacher to scaffold slower learners in the classroom.

### **Inadequate knowledge and teachers' attitude**

Studies indicate that in many classrooms FA is not done because teachers do not have knowledge and skills due to lack of training in FA (Al-Wassia *et al.*, 2015; Heritage, 2007; Heritage, 2010; Quyen & Khairani, 2016; Walani, 2009). Quyen and Khairani (2016) found that eighty percent of the studies they reviewed reported inadequate knowledge as a factor that hinders implementation of FA in the classroom; teachers neither understood the concept of FA nor knew how to implement it.

In Solomon Islands, Walani's (2009) qualitative study that investigated classroom teachers' perceptions of the value of assessment for formative purposes in secondary schools using teacher interviews and classroom observation revealed that teachers' lack of knowledge in FA negatively affect their practices in secondary schools. The study showed that teachers must have an understanding of what constitutes FA for them to be able to use it. Heritage (2010) supports this view when he observes that teachers' knowledge of instructional strategies promotes the use of FA.

A study conducted by Al-Wassia *et al.* (2015) in Saudi Arabia also revealed that inadequate knowledge hinders implementation of FA. The study's results indicated that teachers who lack knowledge will not implement and use results for formative purposes.

Similar findings were reported in a study conducted by Kuze and Shumba (2009) which investigated how teachers used FA in Fort Beaufort district in South Africa using a sample of five teachers and twenty five learners from five schools. Data was collected from participants using in-depth interviews, observations and documents on assessment in this study. Findings revealed that teachers had no knowledge about how to implement FA in their classrooms and that they had a negative attitude towards it. Carless (2006) points out that teacher's lack of knowledge can influence their attitudes towards their subjects and use of FA, hence the need for teachers to be adequately trained in FA. This finding is congruent with Heritage's (2007) observation that teachers' possession of all required knowledge and skills for formative assessment cannot make a difference to teaching and learning unless they have appropriate attitudes toward the role of formative assessment. Furthermore, teachers should view FA as a worthwhile process that yields positive outcomes about student learning, assessment and teaching process where the three are inseparable.

From the above discussion, it can be concluded that when teachers have no knowledge of FA they are unlikely to implement it. For the teacher to practice FA he or she must be knowledgeable and skilled to assess accurately learners' performance and to improve teaching and learning through applying various assessment strategies. Vygotsky (1978) *cited* in Kuze and Shumba (2009) affirm that the more knowledgeable teachers are, the more they are able to assist learners in solving tasks such as assignments, projects or quizzes. Teachers, therefore, need training as the intended goal of FA will not be achieved if teachers lack knowledge.

### **Lack of teacher commitment**

Formative assessment is perceived as an extra workload to teachers. Walani (2009) states that for effective implementation of formative assessment there is need for teacher commitment. Studies on implementation of FA in Africa done by Perry (2013) and

Kapambwe (2010) revealed that teachers perceived FA as an extra workload. This implies that FA creates an additional burden for academics especially with large classes hence need for their strong commitment. Results of a study in Asia also revealed that FA is time consuming and that it creates an extra workload for the teacher, causing them reluctant to implement it in the classroom (Quyem & Khairani, 2017). In line with these findings, my observation is that addressing these challenges would, therefore, influence the quality of teaching and learning with subsequent improvement on student academic achievement.

### **Lack of resources**

Findings of a study conducted by Kuze and Shumba (2009) revealed that lack of resources such as text books and computers affects implementation of FA. Similarly, Al-Wassia et al's. (2015) study in Saudi Arabia that explored cultural challenges to implementation of FA found that availability of resources affect implementation of FA. These authors noted that time constraints and unavailability of human resources were the main challenging factors affecting implementation of FA. From these studies, it is clear that lack of teaching materials and inadequate teaching staff put teachers under so much pressure that they cannot effectively assess learners.

### **Traditional ways of teaching**

Kuze and Shumba (2009) cited traditional ways of teaching as a barrier to implementation of FA. Another study by Tveit *et al.* (2009) regarding curriculum implementation in CHAM Nursing colleges in Malawi revealed that teachers mainly use lectures as a teaching method in the classroom. Teachers further cited curriculum congestion and the need to finish the content as the main reason for using lectures. Similarly, Hares (2013) reported that in Malawi's secondary schools learners copy notes from the teacher and are not actively involved in the learning process. In Asia, teachers believed that learners

should master basic knowledge in the textbook by memorising the knowledge (Quyên & Khairani, 2017). Thus teachers teach to test. Similarly, a study by Chen, Crockett, Namikawa, Zilimu and Lee (2012) cited in Quyên and Khairani, (2017) reported that students with low academic capacity were made to believe that they could only learn mathematics by memorising basic knowledge from the text books. Such wrong beliefs make implementation of FA difficult.

### **Good practices of formative assessment**

According to Marzano (2006), formative assessment should be frequent while feedback should give students a clear picture of their progress on learning goals and how they might improve. In addition, teachers should use a variety of assessments.

### **Frequent testing**

Studies about implementation of FA reveal that frequent testing is related to success in summative achievement (Jacoby *et al.*, 2013; Marzano, 2006; Tveit *et al.*, 2009; Walani, 2009; Weurlander *et al.*, 2012). Frequent testing also covers small amounts of material, allowing content to be processed more deeply and meticulously (Zarei, 2015).

Weurlander *et al.* (2012) reported that a good number of complementary formative assessments throughout a course can help students to study consistently and that for some students this could be an important tool in helping them cope with the heavy workload. Zarei (2008) examined the effect of frequent testing on Iranian English student's performance and classroom attendance and found that the more frequently students were exposed to quizzes; the better their performance looked. In addition, the results showed that the administration of frequent quizzes had a positive correlation with classroom attendance. Wolf (2007) shares these views by observing that regular assessment of students provides useful feedback regarding how well the student is building important knowledge and skills.

Frequent testing also allows both parents and educators to identify motivational and learning problems with individual students at an early stage.

Roedier and Karpicke (2006) assessed the effects of frequent testing on students' retention of information involving Iranian undergraduate university students. Results of the study revealed that those students who were tested frequently during the course remembered information better than those who were not given tests frequently. Similarly, Basol and Johnson (2009) carried out a Meta-analysis study of 78 studies about the effect of different testing frequencies on student learning and examination performance. The analysis revealed that frequent testing was beneficial to student learning and academic achievement. From these studies it is apparent that students work hard throughout the course when they are assessed frequently (Jacoby *et al.*, 2013). Frequent testing offers students with feedback and knowledge of their results giving them opportunity to realise their areas of strengths and weaknesses (Peterson, 2008). This gives them more time to work hard toward eliminating their areas of weakness. All these studies testify that students who are struggling with courses are easily identified when assessed more frequently. Therefore, FA must be used frequently and routinely throughout the school year so that instruction can be modified to improve learning outcomes. With frequent formative assessments, students work hard throughout the course because they want good results.

In Malawi, Tveit *et al.* (2009) reported in their CHAM curriculum implementation report that students needed frequent FA to assess what they have learnt and not at the end. Results further suggested that frequent formative assessments can promote effective use of class time because as students study more they also learn more (Tveit *et al.*, 2009). Therefore, learners should be provided with enough opportunities to engage in deep information processing and to develop problem solving skills. Frequent assessment allows learners to learn from their mistakes and have the opportunity to perfect their learning.

## **Provision of Feedback**

Feedback is an important component of the FA process (Marzano, 2006; Shute, 2008; Yang & Carless, 2013). FA gives information to teachers and students regarding students' performance in relation to classroom learning goals. Feedback should give students a clear picture of their progress on learning goals and encourage them to improve (Marzano, 2006). Shute (2007) in his focus on formative feedback research report states that formative feedback is given as a verification of response accuracy, explanation of correct answer, hints and worked examples. Good feedback gives students information they need to establish their position in learning and determine what to do next. Once students feel they understand what to do and why, most of them develop a feeling that they have control over their own learning, which is a motivational factor (Mpapalika, 2013). One of the features of the constructivist paradigm explains that individuals construct their own meaning and knowledge by actively being engaged in the learning process (Retna & Cavanna, 2009). This construction of knowledge by individuals is an approach which is further supported by Vygotsky (1978) as *cited* in Retna & Cavanna (2009), who argues that individuals' knowledge construction can be further expanded and improved upon under the guidance of capable adults who assume the role of either a teacher or tutor and provide guidance to students through the use of feedback in formative assessments.

For nursing education, feedback about student performance in both classroom and clinical settings enables students to restructure their understanding of a topic or skill in an effort to build a strong foundation for future growth (Duers & Brown, 2009). Good feedback ensures effective impartation of knowledge, skills and habits (Sichinga, Mfuni, Nenty & Chakalisa, 2014). This means that learners will easily know their position in relation to the desired performance and acquire appropriate knowledge and skills when they receive

feedback about their performance. Feedback provides evidence to adjust what the teacher and students are currently doing. It is for this reason that effective feedback should inform learners of what they are doing wrongly or what they have misunderstood (Sichinga *et al.*, 2014). Such feedback will empower and clarify misconceptions in learning.

Race (2011), states that feedback should be given timely, i.e. while it still matters to students and by giving them enough time to seek or ask for further assistance if needed. Literature confirms that when feedback is given too late, it is unlikely to be acted upon as the student would have moved to new content (Yang & Carless, 2013). This makes delayed feedback irrelevant to student's ongoing study, making it extremely unlikely that additional learning activities will result from such feedback (Carless, 2006). This means that timely FA and feedback allow learners to know their strengths and weaknesses and, help students to improve in subsequent performances including SAs. Therefore, from a teaching perspective, timeliness of results allows the teacher to adjust instruction quickly while learning is in progress. Evidence from FA allows teachers and students to make changes and improvements that yield immediate results.

### **Use a variety of assessments**

Reviewed literature suggests that using multiple sources of evidence helps teachers to accurately interpret each student's knowledge and capability (Clarke *et al.*, 2003 *cited in* Walani, 2009; Suskie, 2009). Since a classroom is composed of students with diverse needs, background and skills, it is imperative that teachers choose assessment strategies appropriately bearing in mind that there is no universally suitable form of assessment (Suskie, 2009).

## **Conclusion**

The reviewed literature clearly testifies that FA is an important tool for supporting student learning and studies done in countries such as UK, Hong Kong, Ireland, Sweden and India evidently show that FA has a positive impact on academic achievement. However, the literature also shows that Africa and beyond, use of FA is negatively affected by three main factors; lack of time, teacher's lack of knowledge and commitment and large classes.

Furthermore, the literature review has shown that few studies about use of FA have been conducted in nursing education, with literally none conducted in Malawi. In this scenario, it became imperative for this study to examine perspectives of Malawi's nursing college tutors regarding factors that lead to non-usage of FA and how the non-usage impacts students learning.

## **Chapter 3**

### **Methodology**

#### **Introduction**

This chapter describes the research method, study setting, sampling method, sample size, pre-test approach, data management and analysis strategies of the study and its ethical considerations and limitations. Furthermore, it describes plans for disseminating findings of the study.

#### **Research Design**

The study used a descriptive qualitative design which aimed at exploring factors leading to non-usage of formative assessment in theory courses at St Joseph College of Nursing. A qualitative research design was ideal for this study because it examines in detail the nature of a phenomenon and its relating factors (Polit & Beck, 2010). The design guided the description of the factors that lead to non-usage of formative assessment at St Joseph College of Nursing and its effects on students' performances.

#### **Study Setting**

This study was conducted at St. Joseph College of Nursing, one of the Christian Health Association training institutions in Malawi which is situated in Chiradzulu District, Southern Region of Malawi. The college trains Nursing and Midwifery technicians as well as community midwifery assistants. This college was chosen because being a CHAM nursing college one of the responsibilities of its tutors is to conduct FA.

#### **Target Population**

The study population was 28, which is the total of all nursing and midwifery tutors at St Joseph College of Nursing. The tutors were chosen because one of their responsibilities is

to conduct FA in an effort to assess students and to give them timely feedback that could enhance learning.

### **Sampling Method**

Purposive sampling was used in this study because in this method participants who are selected definitely have attributes that the researcher looks for (Creswell, 2009). In this respect, all tutors at St Joseph College of Nursing had one common attribute, namely the responsibility of assessing student nurses using Formative Assessment regardless of the fact that Tveit *et al.* (2009) found that teachers do not give formative assessments in all courses in CHAM nursing colleges. Participants were chosen based on their knowledge and experience. The sample was, therefore, selected on the basis of its relevance to the present study topic, namely describing factors leading to tutor non-usage of formative assessment at the college.

### **Inclusion / eligibility criteria**

Study participants were recruited after meeting the inclusion criteria set for the study, which was being a tutor at St Joseph College of Nursing and Midwifery. Included in the study were participants who had been teaching for at least 12 months by the time of conducting the study and were willing to take part in the study. These were believed to have relevant information which they could share with the researcher.

### **Exclusion criteria**

The study excluded tutors with less than 12 months teaching experience and those who were not willing to participate in the study. The understanding was that such tutors were not acculturated into the system as such they could not have relevant information to share with the researcher.

## **Sample size**

Mason (2010) states that qualitative research is labour intensive and large samples are time consuming and impractical. A sample of 15 tutors was recruited for this study on grounds that qualitative studies use small samples when conducting in-depth examination of a situation. All the 15 participants were interviewed, and no more new data emerged from the interviews. Thus, the 15 participants formed a sample of saturation for the study (Polit & Beck, 2010), i.e. the point at which repetition or confirmation of previously collected data occurred (Richard & Morse, 2013).

## **Data Collection Methods**

Data was collected from participants using one to one in-depth interviews. In-depth interview is a face to face technique that is designed to obtain a vivid picture of the participant's perspective on a research topic (Polit & Beck, 2010). The researcher conducted 15 intensive interviews with participants in order to explore their perception of a particular idea or situation which is non-usage of formative assessment within a framework of guided conversation (Boyce & Neale, 2006). Information that was collected from the in-depth interviews was more detailed, thereby providing very useful information in gaining understanding about the little researched phenomenon (Polit & Beck, 2012).

## **Data collection instrument**

### **Semi-structured interview guide**

Data was collected using a semi-structured interview guide that was developed by the researcher based on the five specific research objectives and the literature that was reviewed. The semi-structured interview guide consisted of 15 questions concerning tutors knowledge about FA, impact of FA, types of FA, teachers' practices of FA, and barriers to utilisation of FA (See Appendix 5). An interview guide with open ended questions was developed in

advance along with prepared probes (Richards & Morse, 2013). Questions were arranged in a logical order to cover the required areas (Polit & Beck, 2012).

### **Tape recording**

The interviews were recorded using a tape recorder after obtaining each respondent's consent. The interviews were recorded because the data was needed for future referencing. In addition, tape recording ensures an accurate record of data (Boyce & Neale, 2006).

### **Data collection process**

Data was collected for a period of five weeks from 23<sup>rd</sup> September to 28<sup>th</sup> October, 2016. This extended data collection period was necessitated by the fact that tutors were busy with clinical teaching and only few tutors were free to participate in the study during that time. This made the tutors to re-schedule appointments.

### **Preparation**

First the researcher assembled the equipment required for the interviews, namely a tape recorder, batteries, consent forms, note pads, folders, pens and a laptop. Time for the interview was mutually agreed upon with participants to ensure that tutors do not miss classes. A private room was identified in order to ensure confidentiality and privacy. The researcher introduced to individual tutors the research topic, explained the purpose of the interview, and obtained consent for participation and permission to tape record the interviews. The tutors were told why they were chosen and the expected duration of the interview. The consent form clearly stated that participation is voluntary. Participants were also told that code numbers would be used on the forms to ensure their anonymity. After the interviews, the researcher thanked the participants for sparing time for the interview.

### **Interview process**

Interviews were conducted in English because in Malawi, the language of class or lecture room instruction is English. In addition, English is the official language that is used as

a medium of communication of government and commerce. Prior appointments were made with each interviewee and interviews were conducted in mutually agreed quiet and comfortable venues, e.g. tutors' offices. Mobile phones were switched off to avoid disturbing the conversation and the principal investigator was responsible for asking questions.

The in-depth interviews were recorded using a tape recorder and, where necessary, after the interviews some of the information was hand written to supplement recorded data. The interviewer asked the same questions to all the participants (See appendix 5). Unplanned and unanticipated probes were used as supplementary questions. Unplanned probes arose from the context of the interview. Probing questions encouraged the participants to give more information when necessary. In addition, probing questions helped the researcher to gain more insight into the phenomenon of interest (Polit & Beck, 2008). The researcher also used communication skills such as listening attentively, and keeping eye contact to encourage participants to talk. Field notes were documented after the interview session to avoid disturbing the participant. Therefore, observations on mood and behaviour patterns were noted and recorded in interviewer notes to add value to data on nonverbal behaviours. Field notes supplemented with recording and analysis provided comprehension of meaning (Polit & Beck, 2012). These notes were expanded to narratives within 24 hours of writing to avoid losing memory of important points and loss of rich data (Polit & Beck, 2012).

### **Data collection period**

Data was collected over a period of four weeks from 23<sup>rd</sup> September to 28<sup>th</sup> October, 2016.

### **Obtaining consent**

The study was approved by College of Medicine Research Ethics Committee (COMREC). Participants were given detailed written information about the study (Appendix 1). A consent form was given to participants to read, discuss and sign. Signing of the consent

form was done upon participant's agreement to participate and this indicated participants' willingness and acceptance to participate in the study (Appendix 2). Only those who voluntarily accepted to take part in the study and signed a consent form were involved. Each participant also gave consent to have their interview audio taped.

### **Data verification procedure**

Participants were informed about possibility of follow up interviews in case need for clarification of points in the information and member checking arose. Polit and Beck (2008) define member checking as a technique in which the researcher gives feedback to participants on the interpretations of the collected data. This allows the participants to indicate whether or not the information is a true reflection of the information they gave. Therefore, verification was done by asking for clarification on information gathered an exercise that helped to establish the credibility of the study.

### **Pre-test interviews**

A pre-testing of the interview guide was conducted at Mulanje Mission College of Nursing using two tutors who had worked for more than one year. This college was chosen because it is one of the institutions under CHAM which trains Nursing and Midwifery Technicians. Pre-testing interviews were done to assess if the instrument would bring out desired information, how long the instrument will take to administer and to identify difficulties or ambiguous questions. Pre-testing also determined relevance and appropriateness of the tool. The pre-testing of the instrument was also done to test the accuracy and reliability of the semi-structured interview guide (Polit & Beck, 2010). In addition, pre-testing assisted to clarify questions which would possibly be misinterpreted during the actual study. Questions which were determined to be unclear in the pre-test study

were modified. Assessment of accuracy was done by evaluating errors associated with the questions based on participants' response.

The researcher followed all normal procedures that were required to conduct a study and the evaluation assisted to review the instruments as well as the feasibility of the study. Permission was granted by the Principal of Mulanje Mission College of Nursing and Midwifery to test the research instrument (Appendix 3). Adequate information was given to participants about the study to be conducted which was given through written information sheet (Appendix 1). After the participants had understood and accepted to take part in the pilot study, two in-depth interviews were conducted. After pre-testing; the tool was modified, finalized and made ready for use in the data collection process.

### **Ethical consideration**

Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal, and social obligations to the study participants (Polit & Beck, 2010). In order to address ethical principles, the research proposal was first submitted to College of Medicine Research Ethics Committee (COMREC) for review and approval. Thus, data collection was done after obtaining approval from COMREC. Permission to conduct the study at St Joseph College of Nursing was granted to the researcher by the Principal of the College (Appendix 4). Four ethical principles of informed consent, beneficence, privacy and confidentiality were observed when conducting this study.

### **Informed consent**

Informed consent is an ethical principle that requires researchers to obtain the voluntary participation of subjects after informing them of possible risks and benefits (Polit & Beck, 2012). In accordance with the principle of informed consent, study participants' rights were protected from the beginning of the study. The researcher made sure that

participants' rights were protected by giving them detailed information about the study before obtaining their informed consent (Appendix 1). The information covered the aim of the study, duration, data collection methods and procedures, real or potential benefits and risks of the study, and relevance of the research study to Nursing Education (Polit & Beck, 2012). Furthermore, participants were informed of the freedom to ask questions during data collection, and to voluntarily participate and withdraw from the study at any time, and they were assured that any refusal to participate in the study would be accepted without malice.

### **Beneficence**

In line with the principle of beneficence, participants were informed that the study had no any foreseeable physical harm (risks) to the respondents. However, in cases of any emotional or psychological harm, participants' were informed to forward their complaints and concerns to the COMREC Secretariat, Private Bag 360, Chichiri, Blantyre 3, telephone: +265 1 871 911, extension 344. In addition, volunteer participants were requested to sign a consent form to indicate their willingness and acceptance to participate in the study (Appendix 2).

### **Privacy and confidentiality**

The researcher also observed principles of privacy and confidentiality. In this study, privacy was maintained by not attaching participant names to the information. In addition, interviews were conducted in a private place where people could not see or hear what was taking place. Participants were also assured that the data would be treated in strict confidence and that their identity would not be disclosed in the final report or in any subsequent publications. The researcher also ensured that no information given by a respondent was divulged to others.

## **Data management**

Data management involves a complete and accurate recording of all data. Accuracy in transcription ensured that data is of high quality (Speziale & Carpenter, 2007).

To achieve this, interviews were transcribed verbatim by the researcher within 24 hours of data collection to ensure high quality data and accuracy in transcription. All data and field notes were documented and stored in Microsoft word. Copies of all typed documents were filed in different flash drives for safety in case of loss or damage of the computer or one of the flash drives as suggested by Richard and Morse (2013). In addition, back-up copies of all audio files were stored in a locked cabinet. Codes (001 to 015) were also used on the files and headers of transcriptions for storage and easy retrieval. Keys that linked code numbers with names were kept in a secured place.

## **Data analysis**

Data was analysed using the content analysis approach. Data analysis was done simultaneously with data collection; immediately after each data collection session the researcher looked for meanings and narratives of informants ( Polit & Beck, 2010). This helped to integrate ideas from participants into questions and probes in subsequent interviews. Data was analysed manually, however, Microsoft word was used to store and retrieve coded data. The researcher read the transcripts and, in turn, analysed the data using the following five (5) steps of content analysis (Graneheim & Lundman, 2004).

### **Step 1: Transcription of raw data**

Interviews were transcribed verbatim from a digital voice recorder. Transcription was done within 24 hours as recommended by Burns and Grove (2011) who advise that the voice recorder should be listened to as soon as possible after the interviews. The transcripts were read and re-read in order to make sense of data while looking for meaning within the context of significant words or phrases. The researcher also identified meaning, units from words,

sentences, or paragraphs containing aspects relating to each other. The words or statements related to the central meaning were grouped together as meaning units. The qualitative responses were analysed using the process of “thematising” whereby categories/themes in the data emerged through the process of reading and re-reading all the responses.

### **Step 2: Condensation of data**

Condensation of data refers to a process of shortening the text while still preserving the central content. This was done by paraphrasing the material while reducing the data into basic content. Unnecessary words that made the statements difficult to understand were deleted and sentences were transformed into short forms.

### **Step 3: Grouping data into codes**

Data was read and texts were broken down into subparts. The condensed meaning units were grouped into codes according to similarities and differences that allowed the researcher to understand the data in a new and different way in relation to contexts.

### **Step 4: Creating categories**

Creating categories is the key aspect of qualitative content analysis whereby the researcher groups the content that share a commonality. Data was grouped according to similar and dissimilar units, and when creating categories, the researcher made sure that the categories were comprehensive and mutually exclusive, meaning that no data related to the purpose was omitted due to lack of a suitable category.

### **Step 5: Development of themes**

The researcher identified themes and sub-themes from the categories based on five content areas, namely conceptualisation of FA, the role of FA on student learning, types of FA, ways in which teachers’ conduct FA, good practices of FA and barriers to utilisation of FA.

### **Trustworthiness of data**

Trustworthiness refers to credibility and validity of qualitative research and in line with recommendations of Polit and Beck (2012), the concepts of credibility; dependability, transferability and confirmability were used to describe trustworthiness of this research. According to Polit and Beck (2008), many qualitative researchers ensure trustworthiness by evaluating quality of their data and findings. Qualitative research is trustworthy when it accurately represents experiences of the study participants.

### **Credibility**

Credibility refers to confidence in the truth of both the data and interpretations from them (Polit & Beck, 2012). In this study, credibility was achieved by use of multiple informants and member checking. Transcripts were verified by participants in order to confirm their accuracy. In addition, participants' quotes were not grammatically corrected in order to reflect the participants own words or meaning. Providing quotes from respondents throughout the report added credibility to the information (Boyce & Neale, 2006).

### **Dependability**

Dependability is the stability of data over time and conditions (Polit & Beck, 2010). The researcher used logic selection of study participants, collection of data and interpretation of the findings and reporting of the results. The comprehensiveness of the report allowed readers to develop a thorough understanding of the methods and their effectiveness and could repeat the study and find similar findings. Participants were asked the same questions in the same way by the same interviewer. A pre-test was done to check if the tool was practical and clear. In addition, the actual words of participants informing the findings were presented.

### **Transferability**

Transferability refers to the extent to which qualitative findings can be transferred to other settings as another aspect of a study's trustworthiness (Polit & Beck, 2008). The study

has provided sufficient descriptive data in the research report so that consumers who, in this case, are the tutors can evaluate the applicability of the data to other contexts. Sufficient thick description of the phenomenon under investigation was provided to tutors for them to have a proper understanding of it, and to compare the instances of the findings and recommendations described in the research report with those that they have seen and emerge in their situations.

### **Confirmability**

Confirmability refers to the potential for congruence between two or more independent people about data accuracy, relevance or meaning (Polit & Beck, 2010). Participants' interview responses were recorded and transcribed in order to minimize researcher bias and to ensure that data could be confirmed. The researcher also utilised contributions of her research supervisor in checking and confirming the verbatim descriptions, categories and themes.

### **Presentation of findings**

Findings were presented in narrative form with direct quotations from participants. Providing quotes from respondents throughout the report added credibility to the information (Boyce & Neale, 2006). Rather than quantifying information with numbers, qualitative descriptors such as majority of participants, a few participants, minority of participants were used because numbers are used to generalise results (Boyce & Neale, 2006). Demographic data was presented in tables for easy reading (Boyce & Neale, 2006).

### **Dissemination of results**

Dissemination of study findings and possible recommendations will be done by submitting copies of this dissertation to both St. Joseph's College of Nursing and Midwifery and Kamuzu College of Nursing, Lilongwe campus libraries for teachers and students to use. In addition, the results will be disseminated through seminar presentations at St. Joseph's

College of Nursing and Midwifery, and through national and international conferences. The study report will also be submitted to COMREC Secretariat and the research findings will be published as journal articles.

## **Chapter 4**

### **Presentation of findings**

#### **Introduction**

This chapter presents research findings from participants under demographic characteristics and six themes that emerged from the analysed data namely conceptualisation of FA, the role of FA on student learning, types of formative assessment, ways in which teachers conduct FA, good practices of formative assessment and barriers to utilisation of formative assessment.

#### **Demographic characteristics**

The researcher collected data concerning the following demographic characteristics: participants' age, professional qualifications, and years of teaching experience. The ages of participants ranged from 28 to 60 years. Teachers had teaching experience ranging from 1 to 13 years of teaching different courses in Nursing and Midwifery. Most participants had Bachelor's Degree in Nursing and a few had Master's Degree in Nursing. Table 4 is a summary of demographic characteristics of participants.

**Table 1: Demographic characteristics of participants**

Characteristic	Total number of participants
Age in years	
<b>20-29 years</b>	2
<b>30-39 years</b>	6
<b>40-50years</b>	5
<b>Above 50 years</b>	2
Educational level	
<b>Bachelor of Science in Nursing</b>	7
<b>Bachelor of Science in Nursing Education</b>	5
<b>Master of Science in Nursing</b>	3
Working experience	
<b>1-2 years</b>	2
<b>3-5 years</b>	6
<b>6-10 years</b>	5
<b>10-15 years</b>	2

**Theme 1: Tutors' conceptualization of formative assessment**

Participants were asked to explain their understanding of FA as a concept and they gave various definitions of FA and its functions. Under this theme, three results emerged; proper conceptualisation, misconceptions about FA, and some participants don't know what FA is. Participants explained that FA is an on-going process of evaluating students during the course of teaching. For example, some participants emphasized that FA involves evaluation

of student performance and gives a clear picture of which areas a student is weak in and may, in turn, need support as described in the following extracts:

*FA usually what I understand by formative is first of all we have to teach the students the content that we have prepared and as we go along we have to ask students to so that they tell us or assess what they understand or assess what we have told them. We try to assess their understanding of the content. But first of all we inform them/ teach them and then assess as we go... (Participant 3)*

*FA is an on-going assessment that you do when teaching students so that you can evaluate whether they have understood or achieved the objectives. So it's on-going... (Participant 6)*

*FA is the assessment which is done to assess if the students have grasped the subject matter. For example if a student is taught in class you can assess if the student has understood that topic soon after teaching (Participant 13).*

Other participants perceived FA as continuous assessment of students done to obtain marks which contribute to 40% of summative grade during end of semester or year examinations.

This reveals a summative approach to assessment. Some participants expressed the following views:

*“FA involves assessing the performance of students and this involves giving students exercises, mid-semester examinations and assignments that should be graded. It carries 40% of the SA” (Participant 7).*

*“FA is continuous assessment that we do in class. It comprises of mid semester and end of semester exams.” (Participant 12)*

*“amm FA it is where by you assess a student you combine the mid semester and end of semester exams. If you combine that, it becomes formative assessment” (Participant 10).*

However, other participants stated that they had problems describing FA as exemplified by participant 12 who has 6 years of teaching experience who stated that *“I may say I don't know it.”* Similarly, participant 13 stated that *“I am not sure of the real description.* Participant10 also expressed silence shook his head and said *“hahaha hmm”*. He gave no response.

## **Theme 2: The role of FA in student learning**

When asked about impact of formative assessment, most participants explained that formative assessment is a tool for improving learning. They said that, for the students, FA helps them to know whether they have grasped the content that was taught in class and motivates them to study hard. Regarding teachers, they said, FA assists them to know challenges their students are facing and identify proper remedial actions and that also provides information regarding effectiveness of their instructional strategies. For example, participants explained the following regarding FA:

*FA helps to identify mmm strengths and weaknesses of the student, based on findings of FA you can come up with remedial actions on how best to assist students and may be for the students it helps her to know how she is performing and she is in a position to know her strengths and weaknesses. It serves as a tool for improving learning (Participant 7).*

*“..These FA may help you as a teacher to know how far these students have internalised the subject matter which you taught them. By the end of it all when doing summative you would know their level of understanding of your subject” (Participant 1).*

*FA helps students to realise the areas where she is doing better and where she needs to improve so that by the end of the day she is able to catch up so that she can perform perfectly. For those not performing well it gives an opportunity to realise the areas that they can work on to reach the maximum and for those that are doing well it encourages them to work extra hard to maintain their grades(Participant 2).*

Thus FA aids students’ better performance. However, few participants explained that FA is graded and it allows learners to accumulate marks for SA. For example, participant 12 highlighted that:

*“..It helps students to acquire grades because they accumulate the grades towards the end of year than just assessing them from one grade.”*

The findings of this study revealed that, FA is beneficial to both the teacher and the learners. Teachers are able to identify knowledge gaps and correct misunderstandings immediately

while to learners FA helps them to know how much knowledge they have acquired and the feedback motivates them to study hard to improve their future performance.

Participants were further asked to explain the impact of not using FA in the classroom. The results showed that all participants were familiar with the effects of not using FA on student learning. Participants explained that non-usage of FA in the classroom would lead to high examinations failure rate. Some of the study participants shared the following views:

*“..The negative effect is, may be increase in failure rate at the end of the year or program because students may not know in which areas to improve or their weak points and the teacher may not know if the teaching style is appropriate for students”* (Participant 13).

*“For lecturers they may not know whether the students have really grasped the content. For the students it may not portray whether they are on track or not”* (Participant 2).

*“You will not be able to know whether the students have understood or not. You will just be assuming that you are moving together when in actual sense students are far behind and you may end up with a high failure rate”* (Participant 8).

All participants explained the negative effects of not using FA in class. It was significant to note that participants were aware that non usage of FA contributes to an increase in failure rate in the classroom.

### **Theme 3: Types of formative assessment**

Participants were asked to explain what they know about types of FA. Under this theme, two subthemes emerged: formal and informal formative assessment. Participants described FFA as assessment that is scheduled on the master plan. This assessment is graded and it contributes to summative grade and it comprises of mid semester and end of semester assessments. For example, some participants said that:

*“Usually it’s all about the exams that we give thus mid-semester and end of semester exams. Because, I rarely administer assignments and most of the times if given, are not counted for in terms of the grade”* (Participant 2).

*“..formal you tell them in advance that by the end of the topic you will assess them or at the end of two weeks you will give them a test” (Participant 7).*

*“Students are given mid semester exam at each semester and also end of semester examination” (Participant 11).*

The study findings suggest that majority of participants were not familiar with the types of FA although they made effort to explain what they thought was the meaning of formal and informal FAs. The majority of participants explained that FFA is scheduled on the master plan and teachers plan in advance. Some of the participants who explained the difference between FFA and IFA stated that:

*“FFA I believe ok this is to my understanding it’s kind of assessment that is stipulated on the academic calendar of the institution” (Participant 2).*

*“Formal is about giving exam to write but I am not very sure” (Participant 13)*

*“...Formal and informal? Hmmm, just what I am thinking. I am thinking that a formal assessment is the one which has been planned students are told in advance of that formal assessment, there is adequate planning” (Participant 14).*

Some participants described IFA as assessment that is not planned for and is given anytime the teacher wants and it may entail asking questions during a lesson. For example participant 13 stated that:

*“I am not sure of the real description but what I think is may be the informal can be the one that we just pose questions to assess if learners have understood”.*

Some participants described IFA as assessment that is not planned for; they described it as follows:

*“..Mmm informal as it sounds it can be done any time you want” (Participant 1).*

*“....Informal it comes abruptly based on lectures decision that may be today or tomorrow we will have a test” (Participant 2).*

*“May be as the word reads informal means you give assignments to the students without telling them in advance may be before you start teaching them you want to assess what you discussed previously” (Participant 7).*

*“I am not sure of the real description but what I think is may be the informal can be the one that we just pose questions to assess if they have understood” (Participant 13).*

However, other participants stated that they did not know what it was. For example participant 5 stated that *“There I am not sure hmm. There was no response”*.

The responses reveal that participants lacked knowledge about FFA and IFA. Participants associated FFA with written examinations only and the majority of them had problems explaining IFA. They did not know what differentiated FFA from IFA. Participants stated that scheduling of examinations on the master plan was associated with FFA while IFA is considered to be an abrupt assessment.

#### **Theme 4: Ways in which teachers conduct formative assessment**

Participants were asked to narrate how they conduct formative assessment in the classroom. Most of them reported that they used mid semester and end of semester examinations as FA and SA respectively, and that they rarely gave assignments. This is reflected in the following participants' responses:

*“..We give them mid semester exam” (Participant 7).*

*“Students are given mid semester exam each semester and also end of semester examination” (Participant 11).*

*“FA, you give an exam as part of FA you give mid semester exam ... (Participant 14).*

Furthermore, some participants reported that they use questioning in class during teaching.

As tutors, they ask questions before, during and after a lesson to assess students'

understanding of content. A few tutors observe learners behaviours in the classroom and give them feedback accordingly. For example, participants stated that:

*When doing the lesson plan usually I put some questions so that per objective I ask to them to make sure that I assess if they have understood. After each specific objective I ask them to make sure that they have understood the content. Sometimes you can assess the way students are may be listening to you can know whether students are getting it or not. It can be verbal or non-verbal (Participant 3).*

*“..The way I do when I am teaching, after every objective of lesson I ask questions or if they have any questions that they can ask me” (Participant 6).*

Participants were also asked to explain how frequent they administered FA in the classroom. Most participants reported that FFA is done once in a semester in form of mid semester examinations. For example participants explained the following sentiments and reported that:

*“At our college the one on the master plan mid semester is given once in a semester at the mid of the semester” (Participant 11).*

*“.... Mostly at this college we dwell much on mid-semester exam rarely we give assignments” (Participant 7).*

*“May be I can say once like, it’s the mid-semester exam that we give students” (Participant 5).*

*“I think we have mid semester exams and end of semester examination” (Participant 13).*

In addition, a minority of the participants stated that the college has no policy indicating how often FA should be done. One of the participants stated that teachers are at liberty to give FA or not as reflected in the following response:

*For FA mmm we don’t really have prescribed number of FA that aaa may be if I teach hmmm Nutrition it’s not a must that I should assess my students using FA. I can teach and then don’t give them any assessment waiting that I will assess them during summative evaluation (Participant 1).*

Although participants use mid semester assessment only, a few reported that mid semester does not give a clear picture of areas in which the student is weak and may, in turn, need a tutor’s support. This is reflected in the following sentiments:

*If we talk of our semester, we are supposed to assess them midway but may be the assessment is done at the very end and not all areas are assessed. So if not all areas are assessed it means we cannot have a clear picture of how the student is doing in other areas. For example in Midwifery we are only limited to give 2 papers in an exam so if we look at 2 papers to cover all areas it will be very difficult (Participant 7).*

Participants' responses indicated that mid semester is the only strategy used for FA. This means learners are not assessed frequently in a semester; therefore, they are given inadequate opportunities to know their strengths and weaknesses and to address the weaknesses.

Furthermore, participants were asked to explain how they use results of FA in their teaching and they responded that they use mid semester results for continuous assessment, and for giving feedback and improving teaching. Overall, the participants mostly explained that FA results of mid semester are used by the college for continuous assessment which contributes 40% of the end of semester or year grade. Participants emphasised that the main aim of giving FA is for continuous assessment as expressed in the following extracts:

*"..first you use results for continuous assessment where you combine them with results of SA at the end of a semester but the results also guide you to see how students understand and also help to identify slow and fast learners"* (Participant 9).

*"..... The overall grade contributes to the 40% as continuous grade"* (Participant 12)

A few participants also reported that results are used to give feedback to students. Through this feedback students evaluate themselves whether they have achieved learning objectives. Similarly, teachers evaluate the effectiveness of their teaching. For example, participants gave the following responses:

*"Usually results are used to know whether the students have understood or not then if they have not understood I then I have to explain again the concept that they did not understand"* (Participant 3).

*"The results give me a chance to know whether students understand or did not understand the topic and if I see that a lot of students have failed it give me a chance when I am giving them feedback to make corrections tell them how they should have tackled the question"*(Participant 13).

However, some participants reported that most teachers do not give feedback in time.

Participants emphasised that feedback is given too late or it is not given at all. Participants

stated that late feedback does not help students because they are not given time to remedy their weaknesses as reflected in the following participants responses:

*“..one of the problems is that of giving feedback after an exam, looking at the master plan may be to mark the exam on time and give feedback to students’ sometimes it poses a challenge as such results are not given on time and sometimes the results are not given at all” (Participant 7).*

*“..You see teachers at this College give feedback on a Friday and students start writing examinations next Monday. We don’t give students time to improve on their weaknesses” (Participant 5).*

*“..Generally FA at this college, most of the times tutors don’t submit results on time this affect the whole essence of assessment” (Participant 8).*

A significant number of participants reported that formative assessment results are used to make necessary instructional adjustments thereby improving subsequent delivery of content. These adjustments usually benefit another group of students not the class being assessed. For example, some participants gave the following responses:

*The results I can say that they act as an evaluation they help the tutor to re-plan the work or the content which you are delivering and also they help for future planning because some of the challenges that you can find cannot be managed there and therefore can be used for future planning(participant 14).*

*“Sometimes it helps that may be in future I should us a different approach that will help the students understand it better” (Participant 13).*

These responses suggest that some participants possess knowledge concerning the use of FA. They stated that FA is used to evaluate learners understanding, and to provide feedback to both teachers and learners, hence its ability to improve teaching and learning. From the responses, it appears the main reason for conducting FA is to obtain a grade for continuous assessment. This was evidenced by teachers’ inability to give feedback on time or their tendency to not give feedback at all.

## **Theme 5: Good practices of formative assessment**

When participants were asked to explain how they could support students learning their responses revealed that that tutors can support students learning using various ways. Five main ways were identified, namely timely feedback, using a variety of assessment strategies, frequent assessments, giving course outlines, and improving student teacher relationships.

Most participants reported that giving timely feedback after assessment is an effective way of supporting students learning. For example participant 7, reported that timely feedback allows learners to know their strengths and weaknesses and, has potential to help them improve their performance in subsequent examinations. Other participants gave the following responses:

*“..First thing is giving the students feedback because sometimes we can give students an exam and people can mark and don’t give feedback so I feel like giving feedback in time is the best way”* (Participant 5).

*“ .. The other thing is to give feedback on time because feedback helps to student to know his or her stand”* (Participant 7).

*“..The best way is timely feedback”* (Participant 13).

Participants further recommended that teachers should assess students frequently to engage them in their learning. For example, participant 2 emphasised that frequent assessment would engage learners to study throughout the course and to cope up with overloaded curriculum. Frequent testing also provides the student with feedback giving them opportunity to realise their areas of strengths and weaknesses as expressed in the following sentiments:

*I think the best option is to assess these students time and again because it has proved that an exam has always motivated students to be engaged to learn. I believe if we give these formal formative assessments time and again, it will help students get engaged and highlight the common areas that students are having problems so that instructors can easily address* (Participant 2).

*“..May be apart from having only the mid semester we can also have exams before the mid semester we can do some assessment may be giving an evaluation of the topics that you have taught before the mid-semester” (Participant 5).*

*“..Rather than just depending on mid semester exams students can also be given e.g. in Medical Surgical Nursing you are teaching a system you can give tests in class after each topic and you mark” (Participant 12).*

In addition, most participants highlighted that written examinations should be supplemented with group and individual assignments, and case studies to compel students to study. For example some participants expressed the following thoughts:

*“Give them assignments every now and then they will be forced to study because they will know that they have an assignment” (Participant 8).*

*“I think giving them assignments in the form of case studies” (Participant 13)*

*“..I think we should give to students as many assignments as possible” (Participant 14).*

However, a small number of participants stated that individual assignments would create too much work for teachers hence their preferring group assignments which are easy to mark.

Reflecting with this observation, one participant had this to say;

*I think each teacher should consider giving FA to students. May be for individual assignments it might be too much for us but let's try to give them group assignments. But I would also love to have these FA at the end of every topic before moving on to the next topic. I feel after each subject you teach, give them an assignment to see how they are doing (Participant 1).*

The responses concerning good practices of FA significantly show that participants possess knowledge about how learners should be assisted to improve their classroom performance. Participants, for example, know that timely feedback is important because it informs the learners of their strengths and weaknesses, with some explaining that frequent assessments allow learners to be assessed on more areas. Furthermore, others considered the use of a variety of assessment strategies as an important way of helping learners to be engaged in different classroom activities.

## **Theme 6: Barriers to utilization of formative assessment**

When asked about barriers that affect use of FA at the college, participants mentioned different factors; inadequate time, large classes, lack of knowledge, inadequate resources and unavailability of policies.

Most participants thought that FA is time consuming. They were, particularly, concerned that the curriculum is so congested that it is challenging for one to teach and assess students continuously without risking failing to complete given course content. Some participants expressed the following sentiments:

*“..Sometimes you have large content that you want to cover within a short time. So you skip FA because you just want to cover content you just want to finish everything”* (Participant 3).

*Teaching and learning is a process, for you to do everything systematically and teach, conduct assessment one needs enough time. On its own just teaching I assume that assessment has to be done during periods in class. But the time that we have and the number of students we use most of the time teaching and you need extra time for assessment. If you used most of the time for teaching, assessment becomes a challenge* (Participant 6).

*“..First challenge is that FFA it takes time to prepare, administer exam and mark especially with large classes like 150 students. It is time consuming”* (Participant 9).

Participants also reported that large classes hindered them from using FA. The participants explained that FA is extra classroom workload, especially in large classes of more than 150 students which translate to greater marking tasks for tutors. This observation is reflected in the following participants' responses:

*“I think number one challenge which is coming to my mind is the large number of students because we have hundred and fifty students and to give assignments and mark and mid semester exam and mark it takes a lot of time because of that assignments are not given we just depend on the mid semester”* (Participant 14).

*“.. challenges are there especially of the large numbers it is difficult to give individual FA because you think of the marking itself so you avoid giving individual assignment and do group work which already has a challenge”* (Participant 12).

*With the large numbers of students to mark all the scripts of 150 plus students it becomes a bit difficult..... And also some give assignment some don't, the challenge is that in some areas students are assessed in some they are not so it's a challenge because we expect the students to do well in all the areas. But if they are assessed in few courses it's a problem (Participant 8).*

*“..It is difficult to reach all students because of large numbers and sometimes resources. The other thing is large groups you cannot reach out to all of them especially quite students. With double classes you just rush to finish” (Participant 3).*

A few participants also indicated that inadequate resources such as lack of generators, computers, and internet services hinder them from using formative assessment in the classroom. For example, they emphasised that teacher's need electricity to effectively teach and assess learners. The following extracts testify about these concerns:

*Yes we have challenges like computers which you are supposed to use for making questions, electricity especially these days as the college does not have a generator, so you may have the questions in a software form but you may not print it, these are some of the problems (Participant 4).*

*.As an institution we have a challenge of internet services, the students may not be able to have a wide range of area to search information on and that is a great challenge because then students depend on books in the library and sometimes the books that are there are not related or sometimes out-dated or very old and students may not have a chance to access new information from internet and other areas where they can search information (Participant 12).*

In addition, participants reported that the college does not have FA policy to guide its implementation. Due to lack of policy, participants do what they see as appropriate for them. Participants explained that they are at liberty to teach and do assessment at the end of a semester or a course as noted in the following response:

*For FA mmm we don't really have prescribed number of FA that aaa may be if I teach hmmm Nutrition it's not a must that I should assess my students using FA. I can teach and then don't give them any assessment waiting that I will assess them during summative evaluation”. ...Every tutor does it her own way, and there is no formal way on how to do FA, so sometimes people decide to do it or not(Participant 1).*

In other words, participants' views suggest that FA is time consuming and it is an extra classroom workload, especially with large classes. Equally significant, unavailability of policies is a barrier to implementation of FA; teachers have no guidelines to follow. Furthermore, a few participants felt that lack of knowledge affects implementation of FA because teachers do not know how to use it.

## **Chapter 5**

### **Discussion of findings**

This chapter discusses the findings of the present study which explored factors leading to non-usage of FA during teaching and learning at St Joseph College of Nursing. The discussion mainly focuses on impact of FA, types of FA, teachers FA practices, factors that contribute to non-usage of FA, and strategies that would improve the use of FA.

#### **Demographic characteristics of participants**

##### **Professional qualifications**

The results showed that majority of the participants had Bachelor's Degree in Nursing, few had Master's Degree in Nursing and a significant number had qualifications in Bachelor's Degree in Nursing Education. However, the majority of tutors both with education background and those who had other qualifications showed lack of understanding of FA. This is a cause of concern because nurse educators with Bachelors' degree in Nursing Education are supposed to have adequate knowledge about both FA and SA when compared to participants without an Education degree in nursing who would have challenges in the implementation of FA. This finding is supported by studies done by Kuze and Shumba (2009) in the Republic of South Africa and Walani (2009) in New Zealand. These independent researchers found that FA is not done in many classrooms due to teacher's lack of training and knowledge in FA. These findings suggest that for effective implementation of FA, teachers must have knowledge of what constitutes FA.

##### **Teaching experience**

The study revealed that participants had varied teaching experience ranging from 1 to 13 years. The majority of the participants had more than five years of teaching experience. This creates an impression that most tutors at St. Joseph College of Nursing had stayed long

in the field and were therefore, familiar with FA. However, the reality on the ground is that, regardless of the prevalence of such experience, FA is not properly conducted at the college. A study conducted in New Zealand by Walani (2009) revealed that for effective implementation of FA, there is need for teacher commitment. This finding, therefore, suggests that, for teachers to use FA, they must be committed and must consider it a tool for learning.

### **Conceptualization of formative assessment**

The results show that participants understood FA as an on-going process of evaluating students during the course of teaching. Most participants thought that FA involves evaluation of students' performance which gives a clear picture of a student's weak areas and for which they may need support. This finding is supported by Fisher and Frey (2007) who described FA as checking for understanding on what students are getting from the lesson. Similarly, findings from a study that was conducted in the United Kingdom reported that FA is used to make judgements of strengths and weaknesses and support that students may need (Koh, 2010; Peterson, 2008; William, 2010).

In contrast, some participants described FA as an evaluation tool that is used to collect marks for subsequent use in continuous assessment rather than taking into account the use of this information by learners to help and modify their learning. Similarly, a study conducted in Solomon Islands, reported that teachers often refer to FA as part of teacher's on-going or continuous assessments, which count towards the students' overall course work and which later contributes to students' final term grade (Walani, 2013). In India, findings regarding FA practices in Health Sciences Education show that teachers conducted FA as a requirement by the College and regulatory body and marks collected were used for calculating end of semester results (Mayya, 2010). This is consistent with findings by Nakabugo (2003) *cited in*

Mpapalika (2013) which show that teachers usually associate FA with evaluation of learning and perceive it as an activity that provides information about learners' performance. Perry (2013) emphasised that in Africa, FA is more linked to the concept of continuous assessment which is a series of accumulative SA.

Koh (2010) reported that teachers do not fully understand assessment terms and are not clear about what they are supposed to do in order to help students to develop. On the other hand, Black and William (1998) defined FA as all those activities that are taken by both teachers and their students and provide information to be used as feedback to modify teaching and learning activities in which they are engaged in. This means formative assessment activities are meant to provide feedback to teachers and learners which can be used to modify teaching when learning is still in progress and not at the end. The results suggest that participants confuse FA with CA. Furthermore, there is a knowledge gap in understanding FA and its role in teaching and learning which affects its implementation.

### **Participants' knowledge concerning role of formative assessment on student academic achievement**

The study's findings have revealed that participants had adequate knowledge on the role of FA. The majority of participants explained that FA is a tool for improving learning and that it helps students to know whether or not they have grasped content that was taught in class and, in turn, motivates them to study hard. This finding is supported by Vaishali *et al.* (2012) who conducted a study in India regarding use of FA as an education tool. Findings of this study showed that participation and performance in FA was associated with positive outcomes and that adequate frequency of FA with immediate feedback was beneficial to learning as this assesses students achievements, enables the learners to identify the areas in which they are having difficulty, and to concentrate their future efforts on those areas thereby enriching the learning process. Similarly, Marcell (2008) found that, in USA, immediate

feedback provided by quizzes was efficient in identifying areas of misunderstanding and helped students maintain regular reading and study schedules. This finding is in line with studies conducted in the UK and Spain, which indicate that FA produces an increase in student study time (Jacoby *et al.*, 2014; Weurlander *et al.*, 2012). In Malawi, Tveit *et al.* (2009) reported in their CHAM curriculum implementation report that frequent FA can promote effective use of class time because students study more and, in so doing, learn more. Similarly, Weurlander *et al.* (2012) reported that a good number of complementary FA throughout a course could help students to study consistently, and for some students, this could be an important tool in helping them cope with the heavy workload.

In this study, participants further explained that FA assist teachers to know challenges being faced by their students, identify relevant remedial actions, and provide information regarding effectiveness of their instructional strategies. This is consistent with Ndalichako's (2013) finding who notes that information generated through assessment can help teachers to evaluate the effectiveness of their teaching strategies. Similarly, Stull, Varnum, Schiller, and Bernacki (2011) assert that feedback from FA helps the teacher to identify the degree to which instruction was successful and to identify the needed changes in instruction. Stull *et al.* (2011) further notes that FA results can be used to suggest revision of instruction, specific group work or individual remediation.

The findings of this research study further revealed that all participants were aware of the effects of not using FA in class. Participants reported that that non usage of FA contributes to an increase in failure rate in the classroom as students may not know their strengths and weaknesses. This finding is supported by Tveit *et al.* (2009) who indicated that in Malawi, CHAM colleges' students held the view that continuous examinations are necessary because they act as a warning on unsatisfactory students' performance and give room for students to improve upon getting feedback continuously and not at the end.

Similarly, a qualitative study done in India by Mayya (2010) reported that students seldom have adequate information on how well they are performing because of lack of assessments. This finding suggests that non usage of FA will contribute to poor performance in the classroom as learners will not know the areas that need improvement and teachers will not track learners who are struggling with their courses. In addition teachers will know late during SA that students did not acquire appropriate knowledge and skills making it difficult to come up with remedial actions. Therefore, FA should be conducted to motivate students to study consistently throughout the course instead of waiting for end of course or scheduled examinations.

### **Participant's knowledge of types of formative assessment with examples**

The study's findings revealed that participants do not possess adequate knowledge on Formal Formative Assessment (FFA) and Informal Formative Assessment (IFA), types of FA that could help in improving student learning. Furthermore, participants had difficulties to differentiate IFA from FFA. This can possibly be attributed to the fact that the majority of participants are simply professional nurses with less knowledge about assessment.

### **Formal formative assessment with examples**

Findings revealed that a few participants had knowledge of FFA as other participants indicated that they had never come across such terms. However, a few described FFA as assessment that is scheduled on the master plan. Participants further indicated that they use mid semester examinations as FFA and assignments are used on rare occasions. This is supported by Yorke (2003) who reported that FFA takes place with reference to a specific curricular assessment framework. This finding concurs with results of a study conducted in Rwanda by Bahati, Tedre, Fors and Mukama (2016), who found that Rwandan University lecturers understood FA as tests, course work and assignments given to students throughout

the course module which have to be marked. Furthermore, the findings revealed that students are given feedback in form of marks which students should receive before the next assessment on the same module. Similarly, findings from a quantitative study involving 4160 participants regarding Classroom Assessment Practices of Secondary School Teachers in Tanzania revealed that 4049 of the participating teachers preferred to use tests and examinations to evaluate students' learning (Ndalichako, 2013). This implies that the kind of FFA methods used by the participants in the current study correspond to those used by teachers in secondary schools. Similarly, Struyven *et al.*(2005), *cited* in Wheatley *et al.* (2011) reported that the predominant strategy of FA in most institutions is mid semester examination which promotes rote learning whereas methods that promote interaction of teachers and learners, such as projects and case studies, are not utilised. From these findings it can be concluded that participants understood FFA as tests and examinations. Vygotsky (1978) *cited* in Kuze and Shumba (2009) affirms that the more knowledgeable teachers are about assessment, the more they are able to assist learners in solving tasks such as assignments, projects or quizzes. Therefore, if teachers fail to use projects, quizzes, and assignments they may fail to generate a complete picture of student learning. These findings suggest that participants are not equipped to apply FA in the classroom and do not know how they can assess learners formatively, hence the need for continuous professional development.

### **Informal formative assessment (IFA) with examples**

Findings of this study revealed that the majority of participants at St. Joseph College of Nursing had no knowledge about IFA. The remaining few participants, however, described IFA as unplanned and abrupt assessments that take place in the classroom. This finding is supported by Cowie and Bell (1999), *cited* in Akom (2010), where it is reported that unplanned assessment takes place during teachers' interaction with students. In this study,

few participants mentioned observation during teaching and use of questioning in class as examples of IFA. This is in agreement with literature which states that observation on how students behave and perform in classroom on-going activities, oral questioning, monitoring and giving feedback to learners are some of the IFA methods that are commonly used (Akom,2010; Cauley and Macmillan, 2010; Iileka, 2013; Koh, 2010; Perry, 2013; Walani, 2013 ;Yorke, 2003). Heritage (2006) as *cited* in Iileka (2013) reported that teachers can do on-the-fly assessment, which occurs spontaneously in the course of a lesson that results from spontaneous day to day observations of how students behave and perform in class.

Findings of similar studies conducted elsewhere state that IFA are assessments that take place in the course of events but are not stipulated in the curriculum design (Yorke, 2003). This point supports observations by Cauley and Macmillan (2010) who noted that IFA in the classroom is conducted mainly through informal observations and oral questions that are posed to learners while content is being taught or reviewed. These study findings suggest that participants had inadequate knowledge about types of FA, hence the need for continuous professional development.

### **Ways in which teachers conduct formative assessment**

The findings of this study revealed that teachers do not use FA in the classroom. When the participants were asked to narrate how they conduct FA in the classroom a majority of them reported that they use mid semester and end of semester examinations as FA and that they rarely give assignments. The results further indicate that teachers use mid-semester results mainly for CA. These results imply a summative approach considering that the score obtained is the final point and that there is no further use of the score (Hares, 2013). Assessment can be formative only when it is used to improve future learning or classroom instruction (Guskey, 2008; Mpapalika, 2013). From these findings it can be concluded that

teachers use mid-semester examinations to obtain a grade for continuous assessment. This finding is in line with findings of a study conducted by Struyven *et al.* (2005), cited in Wheatley *et al.* (2011) which observed that the predominant strategy of FA in most institutions is mid semester examination which promotes rote learning whereas methods that promote interaction of teachers and learners, such as projects and case studies, are not used. Similarly, in India, findings regarding FA practices in Health Sciences Education reported that teachers conducted FA as a requirement for the College and regulatory body and marks collected were used for calculating end of semester results (Mayya, 2010). A study conducted in Solomon Islands reported that teachers often refer to FA as part of a teacher's on-going or continuous assessments, which count towards the students' overall course work and which later contributes to students' final term grade (Walani, 2013).

Hares (2013), however, asserts that FA is the use of learner performance which is established in many ways to inform future lesson planning, teaching and learning process which is absent at St Joseph College of Nursing. Literature further reveals that formative assessment is not for grading but practice (Chappius & Chappius, 2008). When assessment is purely formative there is no grade attached to it. Similarly, Wheatley *et al* (2015) further indicated that FA should give learners opportunity to practice and improve on their mistakes before they move on to a new topic. This means FA tasks are for practice and not grading, hence the conclusion that St Joseph teachers practice continuous assessment by administering mid semester examinations to obtain a grade which forms part of end semester grade. For example, participant 12 highlighted that:

*“FA helps students to acquire the grades because they accumulate the grades towards the end of year than just assessing them from one grade”.*

This finding is consistent with findings by Nakabugo (2003) cited in Mpapalika (2013) that teachers usually associate FA with evaluation of learning and is perceived as an activity that

provides information about learners' performance. Furthermore, Perry (2013) emphasised that in Africa, FA is more linked to the concept of CA which is a series of accumulative summative assessments. Results of this study further indicate that teachers either give feedback for mid-semester examinations late or do not give it at all. This implies that formative use of summative tests is absent as suggested by Black and William (2009) cited in Hares (2013). Thus, if students write an assignment or mid semester examination and do not get any feedback, formative assessment has not taken place. Organisation for Economic Co-operation and Development OECD (2005) confirms that continuous assessments can become FA when teachers provide immediate valuable and constant feedback to students. This implies that mid-semester results are not used formatively to improve instruction; FA is not done but teachers accumulate marks for continuous assessment as a college requirement. Black and William (2009) cited in Hares (2013) suggest that strategies supporting FA include peer- and self-assessment by students, questioning, feedback and formative use of summative tests. However, peer and self-assessment are not done at all at a St Joseph College of Nursing.

Findings of this study do not support results of similar studies conducted in Cameroon, Tanzania, Rwanda, Zambia, India, and the UK which revealed that teachers use projects and ask learners to re-do their assignments, quizzes, tests, individual and group assessments to assess students understanding in the classroom (Akom, 2010; Koh, 2010; Mayya, 2011; Ndalichako, 2013; Perry, 2013; Wheatley *et al.*, 2011). Perry (2013) and Kapambwe (2010) noted that FA methods such as tests were part of cumulative continuous assessments in institutions of higher learning and were conducted weekly, termly or annually.

Results of the present study further indicate that teachers use questioning as formative assessment, a finding that is supported by results of a study about FA practices in Africa by

Perry (2013) which reported that teachers use questioning in the classroom as a FA strategy. Furthermore, some participants stated that they use questioning in class and plan for IFA in their lessons, which is similar to findings from a study by Akom (2010), Kapambwe (2010) and Perry (2013) who reported that IFA strategies are frequently utilized in African classrooms, with oral questioning being one of the most dominant methods. Some of the informal methods of FA reported by Perry (2013) are monitoring and giving feedback to learners as they work on their tasks during the lesson. These findings concur with results from previous studies by Koh (2010) and Walani (2013), who indicated that IFA involves on-going learning activities aimed at enhancing student learning where IFA is embedded in the teaching and learning process.

In conclusion, the results of this study have shown that FA strategies such as quiz, tests, individual and group assignments, projects, asking students to redo their assignments, self- and peer-assessment are not used at all at St Joseph. This confirms Tveit *et al's.* (2009) finding, that in some CHAM nursing colleges' students do not have formative assessments in certain theory courses. Similarly, Hares (2013) indicates that lessons in Malawian classrooms progress without establishing whether or not learners have understood the intended teaching through FA and that there is little involvement of learners in their own learning in the classroom. Another significant finding is that participants conduct CA and they confuse it with FA, which also support study findings by Perry (2013). In other words, there is knowledge gap in understanding FA and its role in teaching and learning which, in turn, affects its implementation.

### **Frequency of assessment**

The study also found that that the majority of participants assess learners formatively only once, particularly using mid semester examination because it is a requirement by the

college to obtain marks for continuous assessment. This finding concurs with the study findings done in the UK where opportunities to receive feedback concerning examination performance are infrequent or non-existent (Kapambwe, 2010; Mayya, 2010; Roediger and Karparnicke, 2006; Wheatley *et al.*, 2015; Yorke, 2003). Roediger and Karparnicke (2006) in the USA reported that most basic courses in many universities have few tests and classes where only a midterm and final examinations are common. Similarly, Koh (2010) reported that there was a degree of ambivalence about when FA should occur. Similar findings were reported in a study conducted in Zambia by Kapambwe (2010) which found that FFA was conducted weekly, termly or annually and its results were used for CA. Leahy, Thompson and William (2005), however, advance the view that teachers need to take FA as a process that happens at frequent intervals minute by minute, day by day. This suggests that students should be frequently assessed daily, during and at the end of a lesson, end of unit and any time before the mid semester examination to create opportunities for students to make mistakes and learn from them prior to SA (Vaishali *et al.*, 2012; Wheatley *et al.*, 2015). Actually, using mid semester only reduces the opportunity for students to learn as teachers progress to the next units without establishing whether learners have accurately understood the previous units. The finding further signifies that teachers cannot use assessment information to update teaching materials and to improve teaching methods.

### **Use of assessment results**

On use of assessment results this study revealed that FA results are used to improve teaching and to provide feedback to students about their performance. When the participants were requested to explain how they use results of FA in class they explained that results of FA are used to improve instruction in the classroom. This is consistent with Ndalichako (2013) who noted that information generated through assessment can help teachers to evaluate the effectiveness of their teaching strategies. Similarly, a study conducted by Akom

(2010) in Cameroon regarding use of FA despite the constraints of high stakes testing and limited resources found that 67.9% of teachers in Cameroon used assessment data to improve teaching. Stull *et al.* (2011), assert that feedback from FA to the teacher serves to identify the degree to which instruction was successful and to identify needed changes in instruction. In addition, FA results can be used to suggest revision of instruction, specific group work or individual remediation (Stull *et al.*, 2011). However, results of this study revealed that changes in instruction benefit the next class of students and not the present one as feedback is given late after mid-semester examinations hence no immediate use of results in the subsequent lessons.

Participants also use assessment results to provide feedback to students and correct wrong answers. This finding is similar to findings by Ndlichako (2013), who found that teachers use assessment results to provide solutions to problem areas. Similarly, Duers and Brown (2009) reported that FA gives students the opportunity to make mistakes within a controlled environment without any risk to patients, meaning that FA prepares students to what they will meet in future. Therefore, FA results should be used to modify instruction and to provide students with feedback to verify their answers and to improve in subsequent assessments.

With regards to how timely was the participants' feedback, the majority of them indicated that feedback is given after one, two or three months, with few participants indicating that sometimes feedback is not given at all as is the case in Ireland and the UK (Hernandez, 2012; Price, Handley, Millar & O'Donovan, 2010). This finding is supported by Irons (2008) who says that teachers in higher education have a challenge of balancing quality and timeliness of feedback in order for students to get the best learning benefits from that feedback. The finding suggests that feedback opportunities are rare in the classroom and there is little involvement of learners in their own learning as teachers' progress to the next topic

without establishing whether or not learners have accurately understood the intended teaching/content. Therefore, teachers cannot use FA information to improve the on-going teaching practices when feedback is given late or is not given at all. In other words, feedback, should, be given in a timely manner; while it still matters to students and promptly for them to be able to ask for further assistance if needed (Race, 2011). Study findings suggest that when feedback is given too late, it is unlikely to be acted upon as the student would have moved already to new content (Hernandez, 2012; Price *et al.*, 2010; Yang & Carless, 2013). In addition, Suskie (2009), states that allowing students to participate in an assessment activity without giving them feedback regarding their performance diminishes the overall value of the assessment experience and is inconsiderate of students' contributions to an assessment effort. Teachers should, therefore, give timely feedback so that students know in advance what they should improve on in order to achieve the desirable outcomes.

### **Participants' knowledge about good practices of formative assessment**

Regarding participants' knowledge about good practices of formative assessment, the results of this study showed that learners should be given timely feedback to improve their learning. A number of research and descriptive literature concur with this finding by observing that timing of feedback has greater influence on the effectiveness of feedback. Feedback should be given in a timely manner; while it still matters to learners and in time for them to ask for further assistance if needed (Race, 2011; Wing, Koster & Haan, 2014). Archer (2010) noted that immediate feedback after an observed behavior is more effective than delayed feedback. Similarly, Wood (2000) cited in Sichinga *et al.* (2015) affirms that the closer the feedback to the event, the more profitable it is to the learner. Ruland (2011) and Stull *et al.* (2011) agree that specific and timely feedback to students has a greater impact on their academic achievement. Furthermore, Latham (2009) reports that learners prefer more

informed and timely feedback than they do large quantities of feedback. Reeves, (2007) *cited* in Ruland, (2011) further indicates that assessments that inform the teacher and learners about the position of the class or an individual student on the learning continuum have a positive impact on learning, especially when they are used during the process of learning not six months after learning has stopped. This finding suggests that learners benefit from timely feedback because gives them time to improve their performance.

The findings of this study further show that participants held the view that FA should be done frequently. Some of them, actually, suggested that FA should be done weekly or fortnightly and that students should be tested before their mid semester examination. Several studies have indicated that weekly or even more frequent systematic use of assessments has a strong effect on student achievement (Jacoby *et al.*, 2014; Marzano, 2006). A study in India also revealed that adequate frequency of FA with immediate feedback is beneficial to learning (Vaishali *et al.*, 2012). In USA, Marcell (2008) indicated that when frequency of examination is increased, student involvement in responding to questions and discussing the subject matter is increased. Similarly, Roediger and Karparnicke (2006) reported that frequent testing has a positive impact on future retention of material learnt than spending an equivalent time re-studying the material. This is supported by Wolf (2007) who affirms that retention of material is one of the important components of mastery learning which is also achieved through frequent testing. Frequent assessment would, therefore, promote good study habits and retention of knowledge.

Marshall, (2007) *cited* in Zarei (2015), however, suggests that frequent testing does not lead to fruitful and lifelong learning because teachers put their focus on the tests and teach to test thereby providing their learners with only the information they need to do well in the tests. Roediger and Karparnicke, (2006) and Koh (2010) indicate that testing should be minimised because students do not like to take tests, and teachers do not like to grade them.

Despite these arguments the benefits of frequent assessment outweigh their negative effects. This study's finding, therefore, suggests that using FA will make students to read more with subsequent promotion of students' achievement in different courses. In addition the FA will facilitate retention of material learnt.

In this study participants also reported that use of various assessment strategies such as giving more assignments and case studies could help learners to be engaged in the learning process. The result is supported by Gonzales and Fuggan (2012) *cited* in Ndalichako (2013) who state that use of multiple methods of assessment is recommended in education because it has potential to yield information regarding students' strengths and weaknesses in their learning. Similarly, Chilemba (2013) affirms that giving more assignments allows students to have more group discussions, force them to read on their own, hence empowering them to learn. Actually, findings from several studies recommend that FA should involve a variety of tasks such as written tests, quiz, individual and group presentations, projects, observations and questioning (Adedoyin, 2016; Marzano, 2006; Ruland, 2011). Similarly, Weurlander *et al.* (2012) in their qualitative study which explored FA as a tool for learning found that teachers use individual assignments, oral individual presentations, written exercises and class tests to provide students with feedback.

However, Weurlander *et al.* (2012) stated that assessments such as tests, which focus on recall of knowledge, promote surface learning whereas assessments such as problem solving activities in groups, which emphasise application and comprehension, encourage deep learning because they promote critical thinking and facilitate understanding of the course content. This finding, therefore, suggests that there are various methods such as projects, quizzes, group and individual assignments, written tests, self-assessment, oral

presentations that can be used to assess students learning and offer rich information about teaching and learning.

### **Barriers to usage of formative assessment**

The study identified inadequate time, class size, unavailability of policies, and lack of knowledge as contributing factors to the non-usage of FA. Significantly, several studies conducted in Tanzania, Namibia, New Zealand, Bangladesh and United Kingdom also found that inadequate time and high workload affect use of FA (Al-Wassai *et al.*, 2015; Ara & Hossain, 2016; De Luca, Luu, Sun & Klinger, 2012; Duers & Brown, 2009; Lipinge, 2013; Mpapalika, 2013; Ndalichako, 2013; Walani, 2009). In the UK, Duers and Brown (2009) found that within the context of crowded nursing curriculum with large class size of student nurses, FA remains a challenge due to the time and commitment necessary to practice FA within the classroom. Similarly, other researchers observed that large class size and time limitation were some of the significant challenges that negatively affected the use of FA (Ara & Hossain, 2016; Brownie, 2016; Ndalichako, 2013; Quyen & Khairani, 2016; Perry, 2013). DeLuca *et al.* (2012) also reported that time and class sizes are barriers to teachers' use of FA in the classroom. Lipinge (2013) further observed that coping with large numbers of assignments and examination scripts is a source of difficulty in large classes. On the one hand, large class size means increased workloads and this makes teachers to seek ways of reducing the workload hence non-usage of FA assessment. On the other hand, Lipinge (2013), Esia- Donkoh and Antiwi (2015) advance the view that large classes will continue to exist hence the need for teachers to identify strategies for helping learners. This suggests that teachers that teach large classes need to be more organised, and apply more effort to planning for activities that encourage participation of students. In addition teachers should make

changes to their assessment and feedback strategies by encouraging peer grading, self-assessment and giving group assignments.

This study further revealed that lack of knowledge by participants is also another contributing factor to the non-usage of FA. Significantly, studies conducted in South Africa and Solomon Islands by Kuze and Shumba, (2011) and Walani (2009) affirms that lack of knowledge on how to implement FA affects its use. Similarly, Al-Wassai *et al.* (2015) found that inadequate knowledge affect implementation of FA. This finding suggests that knowledge on FA could promote use of FA by teachers and, in turn, assist to improve instruction.

The results of the present study have also shown that inadequate resources are a barrier to implementation of FA. Participants stated that St. Joseph's College of Nursing lacks resources such as laptops, up to date books, and stationary, a situation which makes it difficult to implement FA. This supports findings by Mpapalika (2013) Walani (2009) that inadequate teaching and learning resources for setting tests make it difficult to achieve the intended learning goals. Leahy *et al.* (2005) affirms that different teachers use different FA techniques depending on the school's cultural context, resource available and teachers' knowledge of FA. Al-Wassai *et al.* (2015) also indicated that human resources can also affect use of FA in the classroom. This finding suggests that with inadequate teaching resources, teachers may not give assignments and are unlikely to use FA. Adequate teaching resources are, therefore, necessary for effective implementation of FA.

## **Chapter 6:**

### **Conclusions, recommendations and Limitations**

The aim of this study was to explore factors leading to non-usage of formative assessments in theory courses during teaching and learning at St. Joseph College of Nursing. The specific objectives were to: assess tutors' knowledge of the different types of formative assessments; assess tutors' knowledge on impact of formative assessment; assess tutors' knowledge on good practices of formative assessment; explore tutors' assessment practices in formative assessment and identify barriers to utilisation of formative assessment.

The results have shown that that most participants were not familiar with the types of FA and there tended to confuse CA with FA. Consequently, unless teachers understand FA and its impact its benefits will not be fully realised. The findings also indicated that participants had adequate knowledge on good practices of formative assessment. Frequent assessments, giving timely feedback and using a variety of assessment strategies were identified as important strategies that may help students to learn better. The study findings also revealed that teachers conduct continuous assessment as a college requirement to obtain marks that contribute to end of semester or year examinations. Teachers give mid-semester examination only and feedback is given late or not given at all. Strategies such as projects, assignments and asking learners to re-do their assignments, quizzes, tests, individual and group assignments, problem solving activities, self and peer assessment are not used to assess learners understanding in the classroom. The study findings further revealed that large classes, inadequate time, inadequate resources, and lack of assessment policies were the barriers that lead to teachers' non-usage of formative assessment at St Joseph College of Nursing. Participants suggested that strategies such as frequent testing, giving timely

feedback, continuous professional development, development of FA policy, giving course outlines and improving student teacher relationships should be implemented in order to improve use of FA.

Based on the findings, the following recommendations have been made by the researcher:

- There is need for teachers to make changes to their assessment and feedback strategies by encouraging peer grading, self-assessment and giving group assignments. This is supported by Esia- Donkoh and Antiwi (2015) and Lipinge (undated) who claim that large classes will continue to exist hence the need for teachers to identify strategies for helping learners. Teachers who teach large classes need to be more organised, and apply more effort to planning for activities that assess learners understanding and encourage participation of students.
- There is need to offer continuous professional development (CPD) trainings on Formative Assessment, for teachers to have a deeper understanding of FA and enhance teachers skills and competence in conducting FA. Research findings by Walani (2009) and Kapambwe (2010) indicate that CPD can improve FA implementation in the classroom. Similarly, several studies have advocated for CPD because insufficient teacher training is a barrier to implementation of FA (Akom, 2010; Kuze & Shumba, 2011; Perry, 2013; OECD, 2005).
- All teachers should conduct frequent assessment, give timely feedback to students before they sit for the next examination and use a variety of assessment strategies in assessing learners understanding in the classroom. Walani (2012) reported that FA does not have to wait for end of unit or term but should happen continuously as learners learn during the lesson.

- St Joseph College of Nursing management should ensure that teachers have enough resources that match with the college's large student enrolment per year. Examples of these resources are internet services, and up to date books within the college which enable students to access current information and evidence-based knowledge for teachers to use a variety of assessment strategies such as group and individual assignments. Similarly, several studies on formative assessment recommended that adequate resources can improve FA usage in the classroom (Al-Wassai *et al.*, 2015; Kuze & Shumba, 2009; Walani, 2009).
- The college management should develop an FA policy that teachers should follow to guide its implementation and communicate it to all faculty members. Walani (2009) recommended that policy guidelines for FA can facilitate implementation of FA.

Although the study was conducted at St. Joseph's College of Nursing, it provides an insight on tutors practices and factors that hinder utilisation of FA in the classroom. It is hoped that recommendations of this study will contribute to effective use of FA at St Joseph College of Nursing and other CHAM institutions.

### **Areas for further research**

The present study was done at one College and may not represent the views of other nursing and midwifery colleges. Therefore, there is need to conduct further research in order to identify gaps and other strategies that can help to improve usage of FA in the classroom. These areas include:

- The extent to which teachers use formative assessment in CHAM nursing and midwifery colleges.
- Perception of tutors on the role of feedback in nursing education.

**Limitations of the study**

The study used qualitative design however; use of mixed methods approach could have enriched the findings. Creswell (2008) states that using both qualitative and quantitative approaches allows for a more complete analysis of a problem that is under investigation as it helps to uncover perceptions that might otherwise be missed when one method is used. Therefore, triangulation would have helped to generate an in-depth understanding of leading factors to non-usage of FA.

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## Appendices

### Appendix 1: Information letter to participants

Dear participant,

My name is Alice Tukula, a Kamuzu College of Nursing student pursuing a Master of Science degree in Nursing and Midwifery Education. Currently, I am conducting a research project concerning **perspectives of tutors' on leading factors to non-usage of formative assessment at St Joseph College of Nursing** and I would to request you to participate in this study.

Participation in the study is entirely voluntary. You may choose to participate or withdraw from the study at any time and this shall not have any effects on your job. Your responses will be known by only those people involved in this research and your name shall not be used on data collection tools of the study. The tape and written documents on which your responses shall be recorded will be kept in a safe and locked place.

Findings of the research will assist **St Joseph College of Nursing** to develop strategies that will help students improve their academic performance. Furthermore, there are no personal benefits and physical risks for participating in this study. However, in case of any emotional or psychological harm, you may forward your concerns and complaints to the Chairperson, COMREC Secretariat, Private Bag 360, Blantyre 3 telephone; 01871 911 extension 334. Should you agree to participate, I will ask you to sign a consent form in the space provided below to indicate that you have accepted to be interviewed. The interview will be conducted at a time that is most suitable and convenient to you, and in a quiet environment to avoid any disturbances. You will spend 45 minutes to one hour answering questions about tutors' non-use of formative assessment. I will ask questions which you should be free to answer or not and there are no right or wrong answers to these questions. I would like to record the discussion using a recorder so that I can go back over the responses

to my questions. If you are uncomfortable with having the interview let me know so that I should write the responses in my notebook.

The study and its procedures will be approved by the College of Medicine Research Ethics committee (COMREC) before they are implemented while permission to conduct the study at St Joseph College has already been granted to the researcher by the College Principal. If you have any questions concerning participating in the study feel free to contact the following: The Chairperson, COMREC Secretariat, Private Bag 360, Chichiri, Blantyre 3 telephone; 01871 911 extension 334.

**THANK YOU FOR READING THIS INFORMATION LETTER.**

**Appendix 2: Participant’s consent form**

**PLEASE READ AND SIGN THE FORM IF YOU ARE TAKING PART IN THIS STUDY**

I have read and understood the contents of the information letter. I have been given the opportunity to ask questions, where necessary, about the study and its procedures. I understand that the information I will give to the researcher will be kept confidential and will only be accessed by the researcher and/or those people who are directly concerned with the study. I know that I do not have to suffer any injury or harm during the research process and the information that I will give to the researcher shall not be used against me in future. I understand that I will not benefit financially. I, therefore, voluntarily agree to participate in this study.

Participant’s signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher’s signature: \_\_\_\_\_ Date: \_\_\_\_\_

**THANK YOU FOR PARTICIPATING IN THIS STUDY**

### Appendix 3: Approval letter from Mulanje Mission College of Nursing – pilot study

Kamuzu College of Nursing,  
Private Bag 1,  
Lilongwe.  
Cell: 0999 230 634  
Email: alicetukula@yahoo.com  
24<sup>th</sup> March, 2016.

The Principal,  
Mulanje Mission College of Nursing,  
PO Box 45,  
Mulanje.

Dear Sir/Madam,

**SEEKING PERMISSION TO CONDUCT PILOT STUDY AT MULANJE MISSION  
COLLEGE OF NURSING AND MIDWIFERY**

I am a student pursuing Masters of Science in Nursing and Midwifery Education at Kamuzu College of Nursing (Lilongwe Campus). I am expected to conduct a research study in partial fulfilment of the award of Masters Degree. The topic of my study is “**non-use of formative assessment at St Joseph College of Nursing**”.

The purpose of writing this letter is to seek permission to conduct a pilot study at your institution. The main study will be conducted at St. Joseph’s College of Nursing in June, 2016.

Yours faithfully,

*A. Tukula*  
Alice Tukula

28/3/2016  
Approved and permission granted  
V. Bonapal

## Appendix 4: Approval letter from St. Joseph's College of Nursing and Midwifery



### ST. JOSEPH'S COLLEGE OF NURSING & MIDWIFERY

P.O Box 5505  
LIMBE, MALAWI, CENTRAL AFRICA  
EMAIL:stjosephn@yahoo.com

TEL :( 265) 0111 621 742/0111 621 209  
CEL :( 265) 0888 620 000/0999 637 013

29<sup>th</sup> February, 2016

Alice Tukula

Kamuzu College of nursing

Private Bag 1

Lilongwe

Cc : The Dean of Faculty  
St Joseph's College of Nursing and Midwifery

Dear Madam,

**RE: REQUEST TO CONDUCT A STUDY ON: NON-USE OF FORMATIVE ASSESSMENT AT ST JOSEPH COLLEGE OF NURSING**

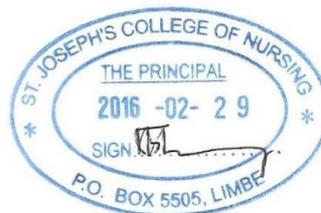
Reference is made to your letter on the above subject. I am pleased to inform you that the college Management has accepted your request. By copy of this letter, the Dean of faculty is authorized to assist you with the information you may need to facilitate your study.

If any changes please notify the college as soon as possible. We wish you well in this exercise and we hope as College we will have an access to the results which will assist to add more knowledge to our tutors on how to improve student's academic performance.

Yours faithfully,

  
J. Mangani

Acting Principal



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All communications should be addressed to the Principal

## **Appendix 5: Interview guide**

### **Background information of tutors**

1. How old are you?
  - 20-30 years
  - 31-40
  - 41-50
  - Above 50 years
2. How many years of teaching experience do you have?
3. What are your qualifications?
4. Which courses do you teach?

### **Impact of formative assessment on student learning**

- Tell me, what do you understand by formative assessment?
- To what extent does formative assessment have effect on student learning?
- In your opinion, what are the effects of not using formative assessment on student learning?

### **Types of formative assessment**

- What do you know about formal and informal formative assessment?

### **Teachers practices of formative assessment**

How do you conduct formative assessment in your classroom?

- Can you explain to me what type of formal formative assessment tasks you give to your students?
- What type of informal assessments do you use in your classroom?
- How often do you give formative assessments you have just stated to me?
- How do you use formative assessment results in your teaching practices?

## **Good practices of formative assessment**

In what ways could teachers support students learning using formative assessment?

Probes

- Frequent testing
- Use a variety of assessment strategies
- Giving timely feedback to students

## **Barriers to utilisation of formative assessment**

What barriers hinder utilisation of formative assessment in your teaching?

Lastly,

- Is there anything you would like to tell me about non-usage of FA?
- Do you have any questions?

**THANKS FOR YOUR PARTICIPATION**

**Appendix 6: Certificate of Ethics approval**

