



# International Journal of Educational Methodology

Volume 8, Issue 1, 151 - 162.

ISSN: 2469-9632

<https://www.ijem.com/>

## Computer Practice Module Lecturers' Experiences of Internal Continuous Assessment at Technical Vocational Education and Training Colleges

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Received: October 19, 2021 • Revised: December 2, 2021 • Accepted: February 9, 2022

**Abstract:** Lecturers have different perceptions of the effect of internal continuous assessment (ICASS) on students at tertiary vocational education and training (TVET) colleges. This qualitative multiple case study explored computer practice module lecturer's experience of internal continuous assessment (ICASS) in three KwaZulu-Natal TVET colleges. Six lecturers were purposively selected from three KwaZulu-Natal TVET colleges. Drawing from an interpretivist perspective, constructivist theory entailing cognitive and social constructivism guided this study. Data were collected by means of semi-structured interviews and document analysis. Collected data were transcribed, categorized into codes and themes emerged using thematic data analysis method. The findings revealed that it was difficult to complete the curriculum due to limited time and assessments methods were limited and did not meet the diverse needs of students. Lecturers had to work beyond the set assessment schedules to cater students who missed or scored below average marks. Moderation and assessment feedback were not considered as a critical aspect in the ICASS. Coronavirus disease (COVID-19) crisis hindered the successful implementation of the ICASS. It is recommended that the policy makers should insist TVET college managements to offer specialized in-service training for lecturers' professional development and upgrade the infrastructure and equipment. Time should be set for teaching activities to enhance effective learning so that extra lectures can be offered to students with limited or no previous computer knowledge and encourage them to follow the comments by lecturers as a corrective assessment feedback. It is concluded that lecturers should use diverse assessment methods to improve students' ICASS.

**Keywords:** *Internal continuous assessment, perceptions, planning, setting, Umalusi.*

**To cite this article:** Atukunda, J., & Maja, M. M. (2022). Computer practice module lecturers' experiences of internal continuous assessment at technical vocational education and training colleges. *International Journal of Educational Methodology*, 8(1), 151-162. <https://doi.org/10.12973/ijem.8.1.151>

### Introduction

Assessment of students' work is one of the lecturers' most complex and important tasks. Sambell et al. (2017) assert that there is no doubt that assessment really matters to students. Assessment standards will not live up to students' potential if lecturers do not know how to transform assessment instruction to meet assessment goals (Ron et al., 2014). What lecturers assess and how and why they assess, sends a clear message to students about what is worth learning, how it should be learned, and how well they are expected to learn. Beets (2012) indicates that policy, especially in an accountability and performativity regime, has a major effect on how lecturers teach, assess and perceive their profession.

Tertiary vocational education and training (TVET) colleges, formally known as Further Education and Training (FET) colleges are part of constant changing environment in education. Since 1994, the education system in South Africa has experienced numerous changes. Outcome based education (OBE) methodology, introduced in 1997 and expressed in Curriculum 2005 (C2005), was strategized to ensure that learning objectives were achieved (Dreyer, 2014). The process and content of education were emphasized by deriving the learning process from the outcomes and to ensure that all students were able to achieve to their maximum ability and are equipped for lifelong learning in post-apartheid South Africa (Booyse & Du Plessis, 2014). The Republic of South Africa (1998), the South African Qualification Authority Act 58 (1995) and the National Education Policy Act 27 (1996) provided a framework for educational change (Booyse & Du Plessis, 2014). It was agreed that there was a need for curriculum transformation following social-political and educational turmoil that South Africa underwent during the apartheid era. Therefore, curriculum adjustment was sought as a driving force to bring about holistic societal change in democratic South Africa (Moodley, 2013).

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The introduction of OBE implied a shift to a different mode of assessment which is basically internal continuous assessment (ICASS) or school-based assessment and moderation. Internally organized assessments, integral in supporting teaching and learning process, assist in diagnosing and addressing student learning needs on a continuous basis in the normal teaching and learning environment beyond the constraints of an examination process Department of Higher Education and Training [DHET], 2018). Both subject lecturers and students are able to evaluate student progress and determine whether remedial interventions are needed (Department of Education [DoE], 2007). ICASS contributes 40% and external examinations, which are set by the DHET, contributes 60% to the final mark with Umalusi (regulatory body in charge of monitoring the quality of assessment) being responsible for quality assurance. The planning, the setting and moderation of assessments plays a crucial role in education (DHET, 2018).

According to the report by Human Resource Development Council of South Africa (HRDCSA, 2014), the vision of White Paper 4 on post-school education and training for the TVET sector is to equip students with knowledge, skills and values necessary for employability in both national and global labor markets. This means that TVET colleges primarily provide training for mid-level skills required to develop the South African economy and tend to concentrate on occupations in engineering and construction industries, tourism and hospitality, and general business and management studies (DHET, 2013). The DHET (2013) also envisages the development and support of an articulated post-school education and training system with bridges being created between vocational or occupational and academic programmes both vertically and horizontally in such a way that there are no dead ends for students (Kraak, et al., 2016). However, lecturers in KwaZulu-Natal province tertiary vocational education and training (TVET) colleges have different perceptions of the effect of internal continuous assessment (ICASS) on students. The Department of Higher Education and Training (DHET, 2013) indicates that TVET college lecturers do not attach importance to ICASS and moderation and as such, the processes are not adhered to. Therefore, inadequate skills are the result of poor assessment processes.

The purpose of this study was to explore computer practice module lecturers' experience of internal continuous assessment in three KwaZulu-Natal TVET colleges. The study sought to answer the following questions:

1. What are computer practice module lecturers' experience of ICASS at three TVET colleges?
2. How do computer practice module lecturers plan for the ICASS?
3. What ICASS methods do computer practice module lecturers use to assess students' diverse needs?

## **Literature Review**

### *Theoretical Framework*

This study is grounded in the constructivism theory entailing a cognitive and social constructivism perspective to attain the understanding of the phenomenon under study. Powell and Kalina (2009) assert that a lecturer must understand and use methods of both cognitive and social constructivism, to conduct effective assessment in constructivist classroom. Piaget (1972) asserts that humans cannot be given information, which they immediately understand and use, instead humans must construct their own knowledge. Vygotsky (1978) believes that social interaction is an integral part of learning and the social environment in which a student finds himself or herself playing an important role.

The constructivist theory shows that ICASS of the computer practice module requires students to actively participate either individually or co-operatively in order for assessment to be effective. Cognitive and social interaction in learning develops student motivation to acquire knowledge and skills (White, 2012). Vygotsky (1978) believes that the social environment in which assessment takes place is vital. Interactions between students and students, students and lecturers as well as students and TVET college management has an effect on student performance. As a result, ICASS planning and the use of effective assessment methods aim at developing cognitive and social interaction amongst the students.

### *ICASS Planning*

The aim of assessment is to gather relevant information about student performance and progress which means that planning of internal continuous assessment is vital to ensure that lecturers cover the content and skills for each module in each teaching and learning period (Conrad & Openo, 2018; Philip, 2015). According to Jaiswal (2019), assessment requires thorough planning prior to its implementation. Planning should start right at the beginning of the learning period with the understanding that assessment is a continuous process (Booyse & Du Plessis, 2014) providing feedback on the teaching and learning process. The planning of assessments in the TVET sector should be done at all levels; for example, from lecturer level: TVET college lecturers are responsible for immediate daily planning for their lessons, tracking the performance of students, providing feedback and reporting their progress; college management level: planning is normally conducted by top management of the college with the aim of ensuring quality control through monitoring and evaluating performances of the lecturers; DHET and Umalusi level: government assessment and regulatory bodies also conduct planning prior to the start of trimester or semester (Jaiswal, 2019). For instance, this planning is reflected through management plans sent by the DHET to all examination centres indicating dates and

duration of different activities that take place throughout the academic year (Jaiswal, 2019), which implies that planning for assessment in TVET colleges is influenced by various stakeholders and in addition, should adhere to the policies of the regulatory bodies that serve as guidelines for college management and also college lecturers.

It is crucial that TVET college lecturers are able to assess students according to their different styles of learnings in order to allow students equal opportunity to achieve the desired learning outcomes (Hauser, 2015). Students learn at different levels and in different ways, which points to the need for TVET college lecturers to offer students multiple opportunities to achieve assessment standards. Knowledge of understanding students' diverse needs is derived from the cognitive constructivist theory which forms the basis of this study. Cognitive constructivists assert that students process new information based on their experiences (Piaget, 1972), which implies that TVET college lecturers need to be conversant with their students' individual learning needs.

At TVET college level, each subject is allocated to a lecturer by the academic head of the college. The lecturer's responsibility is to conduct lectures and assess students. Computer practice module lecturers should ensure that all activities relating to the management of assessment aligns with assessment guidelines (DoE, 2007). Lecturers should develop an assessment schedule at the beginning of the semester comprising the different assessment tasks and percentage marks contributing towards the students' final mark (DHET, 2018). The idea of assessment for learning in this regard is constructive in nature and is designed to allow students to actively engage in learning which in turn leads to cognitive and interactive skills development.

Research indicates that an experienced lecturer, in the role of subject head, is responsible for overseeing the establishment of schemes of work from which the lesson plans are drawn to guide the teaching and learning process (Coetzee, et al., 2015). The schemes of work provide certain content required to be taught in a particular period. Given the developed scheme of work, the computer practice lecturer is then able to set the assessment plan for a semester. According to the DHET (2018), the computer practice module assessment plan must indicate activities that have been approved, administered, moderated and recorded. The assessment plans are then submitted to the academic head for evaluation and approval before the commencement of the teaching and learning process (DHET, 2018). Management utilises assessment plans during the internal monitoring to verify the effectiveness of the teaching, learning and assessment process. Lecturers are also responsible for coordinating the development and moderation of assessment tasks and tools (Coetzee et al., 2015).

Thereafter, the schedules should be provided to the students as they commence with their program. An assessment schedule is a timetable that shows when a particular module will be assessed (DHET, 2018). The module assessment schedule also indicates the type of assessment tasks to be administered, their duration and mark allocation (Coetzee et al., 2015). It is mandatory that students are provided with module assessment schedules as they report for lectures.

The design of assessment tasks should ensure that different aspects such as knowledge, skills and attitudes are assessed (Sephokgole & Makgato, 2019). Standardisation is therefore crucial since it ensures that the percentages marks for ICASS are not inflated due to setting simple or difficult tests that allow students to achieve either high or low marks. The implication is that careful thinking and competence in setting assessment tasks is important (DHET, 2018). Dreyer (2014) shows that the tasks included in the ICASS mark should collectively and progressively cover what is being taught in a particular subject.

Assessments should be moderated. The Department describes moderation as a process of determining the standards applied in the setting of tasks and in assessing students (DoE, 2007). The quality of assessment tasks together with the performance of students are judged before, during and after administration of tasks (Florez & Summons, 2013). In pre-assessment moderation, TVET college lecturers are required to develop an analysis grid that should be used to measure the tasks in relation to the learning outcomes. The analysis grid covers aspects such as the levels of knowledge of the questions, which is remembering, understanding, analysing, application and evaluation (DHET, 2018), the duration of the assessment and mark allocation (Dreyer, 2014). Thereafter, a subject expert verifies and approves the assessment task before it is completed by the students. After the assessment has been written, post-assessment moderation is then conducted on the sampled written and marked tasks (DoE, 2007). The aim is to verify the correctness of the assessment tool and to determine whether students have been fairly treated in the assessment process. Examples of assessment tools include rating scales, observation sheet, checklists, rubrics and marking memoranda/guidelines. The DHET (2018) states that assessment tools should be selected based on the type of assessment task being conducted. It is a requirement that marks achieved in the assessment tasks are converted to reflect the weighting of a particular subject (DHET, 2018). Marks have to be rounded off in order to avoid the use of decimals. The final converted mark should be indicated on the mark sheet as well as on the record sheet. These marks are then captured on the computer system that allows a text file to be sent to the DHET. After DHET approval, feedback should be given to the students. Constructive feedback is perceived as a basic aspect in the application of assessment for learning in TVET colleges (Florez & Summons, 2013).

*ICASS Methods*

DHET (2018) guidelines specify methods of assessing TVET college students. Lecturers should assess student performance practically and theoretically. Practical and theoretical assessments which use various modes to assess student understanding, are formal and compulsory because they contribute to students' final mark (DHET, 2018). The DHET (2018) indicates that portfolios, performance-based assessments, interview-based assessment, play-based assessment, co-operative group assessment, peer assessment, self-assessment, paper-based assessments, observation, practical presentations, field study, case studies and classroom activities should be used as assessment methods. All TVET college programmes require students to demonstrate their understanding through practical application commonly known as in-service training. If any student fails to complete this aspect of the programme, certification for a National Diploma for such a student cannot be processed (DHET, 2018). Normally, students are given the criteria needed to be followed before starting their practical training, depending on the programme and could include portfolios and logbooks. However, studies show that assessment processes in TVET colleges are inadequate due to limitations and lack of expertise, insufficient resources, poor management and negligence (Lutaaya, 2017; Sebetlene, 2016).

*Computer Practice Module Lecturers' Experience of ICASS*

According to Daher et al. (2017), experiences are a direct observation of or involvement in processes as a basis of understanding. In this regard, Higgs and Smith (2006) indicate that the theory of hermeneutics stresses how TVET college lecturers can create knowledge pertaining to ICASS based on their present and past experiences in a constructivist teaching and learning environment. Therefore, TVET lecturers are responsible for setting, administering and evaluating ICASS (Newstead, 2004). This implies that TVET lecturers are central to executing assessments which are necessary for students to achieve their qualifications. However, research has found that there are factors experienced by lecturers which make it challenging to effectively execute ICASS, particularly in the computer practice module (Kanyane, 2016; Lutaaya, 2017; Matshaya, 2016; Sebetlene, 2016).

Lutaaya (2017) revealed that 34% of TVET college lecturers had no qualifications normally required to conduct teaching and assessment duties. On the same note, Kanyane (2016) and Tyler and Dymock (2021) found that some TVET college lecturers cannot handle assessment activities because they were not trained as lecturers and no initiatives had been taken to provide in-service training by the college management. This explains the inadequate expertise implementation of assessment since the majority of lecturers do not possess the minimum teaching qualifications needed to execute teaching and assessment duties. In addition, TVET college lecturers reported that college management uses a subjective selective approach to choose lecturers who can attend assessor and moderator trainings (Matshaya, 2016). Kanyane (2016) found that the majority of TVET college lecturers indicated that college management only trained a few lecturers out of the entire lecturing staff. However, the findings by Lutaaya shows that 55% of the TVET college lecturers reported to have been trained as assessors and 49% as moderators.

Lectures experienced time constraints as a barrier for assessment in the computer practice module. According to Sebetlene (2016), TVET college lecturers are expected to engage in various activities such as invigilating national examinations, executing internal marking, organising, typing examination scripts and moderating their assessments during the same period. These activities involved a great deal of paperwork which in turn, impacts negatively on the quality of the assessment as some lecturers end up cutting and pasting questions from previous question papers and as a result, the assessment does not meet the standards (Kanyane, 2016). According to the DHET (2018), the computer practice module has three assessments which must be set, moderated, administered, marked and recorded within six months.

Kanyane (2016) reported that lecturers felt that paperwork required as evidence of teaching and assessment is overwhelming and time consuming. TVET College lecturers are required to develop two files namely an assessment file and a subject file for each module they teach (DHET, 2018), which are moderated by the TVET college management on a continuous basis. Lecturers are also required to pace their various assessment activities and meet the set deadlines.

Student absenteeism in TVET colleges is a concern because it disrupts the assessment process. Findings by Lutaaya (2017) indicate that absenteeism in TVET colleges is a result of student and school-related factors. Some students miss out ICASS due to factors such as illnesses (Sebetlene, 2016), and in addition, lecturers reported on students' lack of interest in assessments resulting from complexity of TVET college programmes since some students fail to align their mental abilities with intellectual requirements of the programmes (Kanyane, 2016). Students do not see the relevancy of the TVET college curriculum and assessments in relation to their future and end up becoming demotivated and this eventually leads to absenteeism and drop out (Lutaaya, 2017). Matshaya (2016) and Sebetlene (2016) indicate that some students are irregular attendees at classes due to laziness or because they have relationship issues with either their peers or lecturers.

Infrastructure, such as computer laboratories, and equipment such as computers, printers and projectors, is a problem in most TVET colleges. Lutaaya (2017) found that computers in the laboratory were insufficient, and some were not even operational with no internet access. In addition, computer laboratories did not have functional air conditioners,

which implies challenges lecturers might face in the teaching and assessment process. Sebetlene (2016) indicates that lack of physical resources such as workshops and simulation rooms for practical components of assessment meant that it is a challenge for students to apply learnt content in a real-world situation. Lecturers indicated the shortage of necessary consumable material such as stationery to support the demanding assessment activities (Lutaaya, 2017).

## Methodology

### *Research Design*

The study was qualitative in nature underpinned by an interpretivist perspective. De Vos et al. (2011) maintain that qualitative research aims at enhancing understanding and interpretation of the essence of occurrences and situations from the participants' point of view. This multiple exploratory case study, focused on selected TVET college lecturers offering the computer practice module in three KwaZulu-Natal colleges.

### *Sample and Data Collection*

Six TVET college computer practice module lecturers from three KwaZulu-Natal colleges were purposively selected. Taherdoost (2016) describes purposive or judgmental sampling as an approach in which certain settings, people or occurrences are selected consciously so as to avail prime information which cannot be procured through other means. Participants were selected because they possessed the necessary information since they were involved in ICASS planning, administration and providing feedback to the students.

Data were collected through semi-structured interviews and document analysis. According to Mishra and Alok (2017), a semi-structured interview is an intensive one-on-one interaction between a researcher and a participant directed at analysing the participants' viewpoint of reality. An interview schedule with pre-organised open-ended questions, which assist gaining insight of the participant's experience of the research problem guided the interviews. De Vos et al. (2011) explain that the open-ended questions assist in gaining insight into participant's experience of the research problem. Probing, an exploratory action particularly one planned to investigate and acquire information on a specific topic (Faulkner & Faulkner, 2019), was used as a questioning technique to obtain sufficient data during the interviews. The interviews, lasting between 30 to 45 minutes, were conducted in the staffrooms during lunch breaks. Notes-taking and audiotaping were used to record responses from the participants. Document analysis as a process of studying the existing documents with the aim of understanding their substantive intent or to illuminate in-depth meanings which may be revealed by their content and style (Sutton & Austin, 2015). In this study, a checklist was used to confirm the relevant documents which lecturers use in their practice. The checklist comprised documents such as computer practice assessment schedule, ICASS assignments, tests and memorandums, evidence of moderation and record of raw marks and additional supporting tasks such as projects.

### *Analyzing of Data*

Thematic analysis method advocated by Braun and Clarke (2006), was used to analyse collected data with all the six steps followed during data analysis. The researchers familiarised themselves with the transcribed data by rereading them several times. The ideas were jotted down for potential themes. The initial codes, representing the same ideas, were highlighted with the same colour. Different colours were used to identify codes belonging together. Codes with the same colour were grouped together and potential themes emerged, defined and named using participants' quotes. The themes were continuously reviewed and compared to the raw data to check coherence. The themes with similar ideas were merged. Lastly, a narrative discussion followed in relation with the themes.

### *Measures of trustworthiness*

Trustworthiness means that researchers take initiatives to establish the truthfulness of the data (Mishra & Alok, 2017). The researchers employed triangulation to ascertain credibility by using the interviews and document analysis as data collection methods. The collected documents were compared with interviews data to corroborate what emerged from the interviews. Member checking took place where the researchers allowed participants to respond to findings to certify their spoken information before being finalised for publication. The in-depth contextual information regarding the three TVET college lecturers' experiences of the computer practice module in KwaZulu-Natal province was presented. These measures will allow the study findings to be transferred to other TVET colleges in South Africa. In addition, interviews were audio-taped to ensure that correct information was captured and the recordings were transcribed verbatim. The interpretations of the study included verbatim words of the participants. A reflective journal was kept where all the events that transpired during the study were documented, which allowed the elimination of personal biases that could have influenced the research process negatively.

### *Ethical Issues*

Before the data collection, an application for University of South Africa ethical processes was submitted. The application was approved, and an ethical certificate number 2020/10/14/56289464/21/AM was provided.

Pseudonyms like P1, C1 meaning Participant 1 from college 1, were used to protect the participants identities during data analysis.

### Findings

Participant pseudonyms of P1 to P6 were allocated based on the sequence in which data collection took place. There was no attempt to equate the number of participants according to gender because participation was voluntary. The participants' age ranged from 28 to 50 years of age. Only three participants were qualified as educators as one held a Bachelor of Arts degree in Psychology and two held Post Graduate Certificates in Education. The other three participants held a Bachelor of Technology in Information Systems (B-tech IS), Bachelor of Commerce (B-Com Hons) and Bachelor of Commerce-Management Information Systems (B-Com-MIS). The teaching experience of the participants ranged from five to fourteen years. Gender, age group, teaching experience and qualifications of the participants are considered important factors that explain why, when and why human beings act in certain ways (Nuckcheddy, 2018).

The purpose of this study was to explore computer practice module lecturers' experiences of internal continuous assessment in three KwaZulu-Natal TVET colleges. The themes of Computer practice module lecturers' experience of ICASS, ICASS planning and the ICASS methods emerged from the raw data and are presented below.

#### *Theme 1: Computer Practice Module Lecturers' Experiences of ICASS*

Participants acknowledged that ICASS was a crucial component of teaching and learning. However, factors limited the effective assessment process. In the interviews with participants about conducting ICASS, it was found that some of TVET college lecturers had no qualifications required to conduct teaching, learning and assessment duties. One of the participants without teaching qualifications attested that: *"I do not have a teaching qualification. I did B-com in Information Management Systems."* (P6, C3). In view of the interviews data, 50% of the participants did not train as professional lecturers which compromised the ability to execute the tasks of teaching, learning and ICASS effectively.

It was found that not all the lectures were offered ICASS in-service training. Only those who were selected attended. P1, C1 affirmed that: *"Basically, they are supposed to send us for training but that never happened, they make us fill in that form but indicate financial problems and only selected lecturers attend."* It seems that TVET colleges management experiences financial and budgetary constraints which limits the number of lecturers attending training workshops. As a result, many lecturers, without teaching qualifications, were not given the opportunity to attend ICASS and moderation courses due to the selection approach used by management. This means that lecturers in many instances, were not equipped with the necessary knowledge and pedagogical skill to plan, prepare and conduct ICASS effectively, which could have an effect on the teaching and learning process and compromise student achievement.

The participants highlighted that time and paperwork tends to be a major constraint. P6, C3 coincided with P1, C1 indicating that: *"The time allocated to the module is less for planning, setting of questions and marking. I can't even give individual attention to students. I have two files to administer. ICASS tasks planned for the computer practice module were diverse, and participants felt that not enough time was not allocated for teaching, learning and assessment to ensure curriculum coverage, let alone assist and support students needing help. Students are required to complete all ICASS tasks successfully to qualify for the final examination; however, in some cases, time is a constraint preventing lecturers from conducting ICASS effectively: The trial test should cover 100% of the curriculum, which means that the examination should take three hours. Students who got low marks less than 40% or who did not write are automatically disqualified from writing the final examinations and usually we do not have that kind of time."* (P1, C1). This means that time could be a constraint on giving students a second change to write the trial examination or redo ICASS tasks in order to be allowed to write the final examination.

In addition, lecturers were not only occupied with teaching and assessment duties but were also mandated to execute administrative tasks. *"There is too much paperwork."* (P6, C3). Lecturers indicated that student absenteeism in TVET colleges was a concern as it interrupted the ICASS process. P2, C 1 reported that: *"Sometimes students are not attending lectures due to strikes, illness and some with lack of interest, and they also miss assessments. Those who fail to turn up for tests are normally assessed differently with a whole set of new assessments. I have to set another test for them because they need term marks."* Students' absenteeism was a great concern and lecturers viewed it as an inconvenience, disrupting the ICASS process, necessitating the development of additional assessment which could compromise students' learning.

A further issue which lecturers had to deal with was infrastructure and equipment in the three TVET colleges. It was found that the laboratory setup was not adequate as there was a limited number of computers, printers and projectors some with technical faults which obstructed the smooth running of ICASS process. In addition, faulty air conditioners were a problem, as conditioners are needed to maintain a constant temperature in the laboratories to cool the computers and control dust which could affect the functioning of the machines. P4, C2 declared that: *Some of the air conditioners in the laboratory are leaking, sometimes the printers are not working, and it takes a long time to be fixed."* The participants' frustration regarding the infrastructure and equipment required for effective assessment of computer practice module was evident.

### Theme 2: ICASS Planning

According to DHET guidelines (2017, 2018, 2020, 2021), ICASS for the computer practice module in TVET colleges should be planned at all levels before the start of the academic period. An assessment plan showing all the tasks should be designed with stipulated assessment dates as well as details of the learning aims covered in each task. When the participants were asked about how ICASS planning was done, P4, C2 responded that: *"We plan assessments prior, for this year we have already set assessments before the start of the year. Students receive year plans and the assessment plans or the year calendar. We normally locate a week for tests but sometimes we deviate from the assessment plans because we do not have enough time."* The response signified that TVET college lecturers planned their ICASS before the beginning of the academic year and provide students with the academic calendar which includes the year plans and assessment plans. However, there seems to be discrepancies with administering ICASS - some participants indicated that they allocated a week while others the whole month for tests.

Data from interviews and documents analysis revealed that there were processes followed to set the ICASS tasks for the computer practice module. Participants reported that the ICASS tasks are set and administered at one campus and distributed to other campuses. However, when participants were asked how they set the assessments, P5, C3 explained that: *"I take past examination papers and make a few modifications or exactly as it is, and also follow our lecturer guides textbook."* It seems that in some instances, the setting of assessments was compromised and lecturers simply copied and pasted questions from the previous examination papers.

The data revealed that some lecturers do not have full knowledge of all aspects of ICASS such as the percentage mark contributing to students' final achievements. One of the participants declared that: *"I am not sure what marks they contribute."* (P3, C2). This means that some TVET college lecturers fail to set standard assessment tasks as they lacked knowledge of the required ICASS percentage mark which contributes to the final mark.

When participants were asked about the tools used to mark assessments, P6, C3 indicated that: *"We mark with memorandums, but sometimes, I mark even without a memo because setting a memorandum need a lot of time and it is difficult to follow."* All the participants indicated that setting the memorandum as an assessment marking tool is time consuming and, in some instances, lecturers find it difficult to use.

ICASS marks were recorded on the system as evidence of assessment. P2, C1 indicated that *"I record marks on the record sheet and on the system because DHET does not take hard copies, it must be a text file. But you know sometimes the system for capturing is a problem."* Using the systems to capture the internal assessment marks was, at times, a challenge to the participants, although it was necessary for these marks to be recorded electronically.

Monitoring and moderation of assessment standards is the responsibility of the DHET, subject heads of department (HODs) and senior lecturers. P3, C2 mentioned that: *"We moderate for each other, but we do not just pick anybody, the senior lecturers are the ones who allocate the moderators. However, moderation is just a formality, because sometimes we do not get feedback."* Based on the response, it seems that feedback on assessment is often not given, which could enhance the quality of the task.

TVET college computer practice lecturers are required to develop assessment files which are continuously monitored by the DHET to verify the presence of the assessment evidence. Moderation for ICASS is conducted to determine the criteria that needs to be met to ensure quality in effective teaching and learning process and assessments. After the assessment, feedback should be provided to students by the lecturers. P5, C3 asserted that: *"After writing the test, we write the feedback on the answer sheet. I do not even think that students read the feedback, they just see the mark."* Even though the correct answers are given and feedback about performance is offered, it seems that students did not take the comments into consideration as they are only interested in the mark.

### Theme 3: ICASS Methods

It was expected that lecturers use diverse assessment methods to prepare students for the world of work. However, the interview data revealed that participants included demonstrations, questions and answers, peer assessments, presentations, observations, group work and tests as assessment methods. P5, C3 indicated that: *"I start by demonstrating those concepts and after demonstrating using my own examples, I give students exercises and go to each student to see if they are doing it correctly."* Demonstration was assumed to be a good example of an assessment method and helped students in skill development and achievement, especially if the task is practical in nature. P5, C3 confirmed this: *"Computer module is practical, so we have three or two tests and one trial exam."* Since the computer practice module is a practical subject, participants acknowledged that practical activities are effective. Participants viewed the peer-to-peer assessment method to be a practical method of assessing the computer practice module. In addition, lecturers used the peer-to-peer method to scaffold students, as explained by P1, C1: *"Ok, we try to use multiple ways of supporting students like sitting the students next to those who know the work so that they can assist them."* They believed that some students are more likely to learn easier when they get assistance from their fellow peers especially when students are not fully prepared for working with a computer. P3, C2: *"We could go for presentations right, but now it depends on Level 4 or N4 - remember many of them come from humble backgrounds so they have never seen the*

computers, that means you spend more time making them to be comfortable with computers. When you go to N5 and N6, you can now see those are experienced and comfortable with computers, so we can make presentations." Presentations were noted to be mostly applicable at higher levels of learning where students were more experienced in using computers.

Group work was proved to be one of the methods used to assess computer practice module in TVET colleges. P1, C1 explained that: "Another way which we should be using but we cannot, due to COVID-19 is to group students and have assessment session with them." Participants admitted that group work yields good results; however, since the onset of the COVID-19 pandemic, participants indicated that co-operative assessment methods were not used as pandemic protocol needed to be adhered to. However, lecturers did indicate that assessment tests are an effective evaluation that assists them in not only predicting students' final achievements but also informs further learning.

### Discussion

The study revealed that out of six participants, only three of the computer practice lecturers were qualified as professional educators. The other three hold qualifications in other specialised fields. Not having an education qualification, such as a Post Graduate Certificate in Education, could compromise the assessment implementation and students' performance, which concurs with Lutaaya (2017) and Shereni, (2020) who found that lack of appropriate qualification, compromises standard of assessment practices. It emerged from the data that lecturers need supplementary training on assessment and moderation. It was assumed that lecturers were supposed to have attended in-service training, however, training was not organised. When lecturers lack knowledge, the standard of assessments is greatly affected. As a result, lecturers tend to use traditional and convenient means to assess students without considering the expected subject outcomes. These findings coincide with Gillis (2020) and Lutaaya (2017) who assert that the majority of TVET colleges lecturers are not trained as assessors and moderators.

ICASS should be planned, set, monitored and moderated in order to ensure that standards have been met. TVET college lecturers are required to develop assessment files which are continuously monitored by the DHET to verify the presence of the assessment evidence. However, it was found that assessment plans that were designed to guide processes of assessments were not followed in all the TVET colleges under study. Jaiswal (2019) states that assessments plans need to be adhered to so that learning can be easily tracked. It was found that lecturers tended to deviate from the plans to suit the demands of the circumstances. It was found that the setting of internal assessments was compromised in TVET colleges as lecturers simply copied and pasted questions from the previous examination papers.

Time allocated for teaching and assessment should ensure that the teaching, learning and assessment process attained curriculum coverage. Lecturers are tasked with the planning and implementation of ICASS which entails setting, moderation, marking, administration of remediation activities and recording of assessment marks. Lecturers are also required by the DHET to keep two files related to the teaching and assessment of their subjects. The internal examinations, administered as part of ICASS, should cover the whole curriculum. However, it was found that due to time constraints, the coverage of the whole curriculum was compromised. This means that lecturers' desire to conduct assessment effectively was disadvantaged as they only focused on meeting deadlines and not ensuring assessment of student learning. In some cases, the assessment process seemed unfair as assessment tasks administered to students included content that had not been taught.

Absenteeism undermined students' ability to perform well in assessments. Some students stayed away during assessment periods and some students were not able to engage in assessments due to physical ailments, strikes and laziness. This meant that students ended up missing assessments which automatically disqualified them from writing the external DHET final examination. To avoid disqualification, lecturers organised assessments outside the set schedule in order to cater for students who had not completed the assessment as well as those who had scored below average marks. These findings aligned with several scholars who concur that students' absenteeism may be the result of failure by college management to take care of students' educational needs (Gillis, 2020; Kanyane, 2016; Lutaaya, 2017; Sebetlene, 2016; Shereni, 2020). In such cases, student demonstrations could result as well as lack of interest which could lead to students dropping out of the programme.

The infrastructure and equipment were also indicated as a barrier to effective assessment due to lack of air conditioners in the laboratories, computers, printers and projectors. Assessment was challenging as many computers were not functional which meant that not all the students could be catered for in a single session, which forced lecturers to divide the classes into several groups which required time to assess the various groups. As a result, lecturers were forced to work outside the assessment schedules in order to incorporate various groups of students. The findings revealed that lecturers administered the same tasks to all students even though assessments were not done in one sitting, which could have compromised the reliability of the assessment. Constructive learning calls for sufficient time to allow the assessment process to take place (Olusegun, 2015) to assess the level of students' co-operative and individual learning. In addition, the laboratories' air conditioning was not working in many cases which mean that the environment was not conducive to teaching and learning as well as affecting the computers. Lack of printing machines



had an effect on students' learning and acquisition of the printing skills and faulty projectors had a major effect on the teaching, learning and assessment processes (Lutaaya, 2017).

Document analysis revealed that three participants had not filed the assessment schedules and assessment tools which are vital in guiding computer practice lecturers to teach and assess the intended outcomes (DHET, 2020). Four participants had administered only two of the three assessment tasks. It was found that only two participants had administered and filed all three assessment tasks; however, on further analysis, the tasks included questions which only assessed remembering and understanding as levels of knowledge. The analysis showed that standardisation was not prioritised as some question papers did not cover higher-order levels of knowledge namely, analysis, application and evaluation. This implies that compliance with quality assessment procedures was not adhered to. In addition, a well-designed and content-aligned assessment tool allows lecturers to mark assessments in a fair and standardised manner. Memorandums for marking were not comprehensive and not all questions had guidelines. This meant that some questions were marked with no clear guidelines which compromised the marking and could have an effect on the marks.

Pre-moderation and post-moderation of the ICASS was not considered as important by the lecturers as evidenced by document analysis which revealed that three lecturers did not have moderation reports in their files. This indicated a lack of compliance to quality assurance protocols which are set by the DHET and Umalusi. Pre-moderation reports assist lecturers in setting assessments according to all the levels of knowledge, which is remembering, understanding, analysing, application and evaluation (DHET, 2018), while post-moderation confirms the correct usage of the assessment tool and verify the fairness of the assessment process. According to the DHET (2018), lecturers are required to file all the evidence of the moderation process.

Feedback was not considered as a critical aspect in assessment of learning. Students did not consider lecturers' comments which contradicts the findings of Jaiswal (2019) that assessment feedback is a crucial component of teaching and learning process as it motivates improved performance when correctly applied.

Computer practice is a practical module and the assessment thereof requires students to demonstrate their ability to apply the knowledge and skills that they have learnt. Practical and theoretical assessments are crucial because they contribute to the final achievement of the students. In order to ensure effective teaching, learning and assessment, lecturers need to apply various assessment methods to meet the diverse learning needs of the students (DHET, 2021). However, it was found that lecturers used a limited number of assessment methods and tended to predominantly use traditional methods. Railean (2020) affirms that case studies and simulation assessments allow lecturers to assess students' ability to learn in an environment similar to the work situation.

During this research, the COVID-19 pandemic affected the ICASS processes of the computer practice module. Adherence to COVID-19 protocols was compulsory for all the lecturing staff as well as students (DHET, 2020). Non-compliance was subject to disciplinary procedures for both students and lecturers. Due to COVID-19 pandemic, lecturers could not assess large groups of students at the same time in a single venue. The division of classes was required which ultimately called for more time to be able to cover all the groups. This also increased lecturers' workload as invigilation time was extended. Findings showed that assessing different groups strained the time available for teaching, learning and assessment.

### **Conclusion**

The purpose of this study was to explore computer practice module lecturers' experiences of internal continuous assessment in three KwaZulu-Natal TVET colleges. The TVET college lecturers perceived ICASS in different ways even though the DHET had issued guideline to ensure that the correct process is to be adhered to when conducting the ICASS. Based on the constructivism theory, the study provides the literature on the lecturers' experiences of lack of proper qualifications, a selective approach to choose lecturers to attend in-service training, time constraints, paperwork, student absenteeism, infrastructure and equipment as barriers to conduct effective ICASS. Planning of the assessments is done at lecturer, management of the college and the DHET and Umalusi levels. The ICASS has to be moderated before it can be administered. After the assessment, students should be provided with the feedback and should consider the lecturers' comments for improvement in their learning. Different ICASS methods have to be used to prepare students for the world of work.

This study highlighted inconsistencies that existed in the ICASS process in the TVET colleges under study. It was revealed that only three lecturers were qualified to teach, and appointed lecturers had not undergone in-service training. Curriculum coverage was not done due to limited time. Pre-moderation and post-moderation of the ICASS was less considered, lecturers worked outside the set ICASS schedule to cater for students who missed or scored below average marks and assessment feedback was not considered as a critical aspect in assessment for learning. Student absenteeism, poor infrastructure and lack of equipment, and an overload of paperwork hindered a smooth ICASS processes. Lastly, COVID-19 also negatively affected the ICASS process as the pandemic protocol needed to be observed.

### Recommendations

It is recommended that DHET should set minimum specifications in terms of qualifications for the appointment of computer practice lecturers in order to improve implementation of assessment processes. Courses like Post Graduate Certificate in Education (PGCE) at universities should be considered for lecturers without teaching qualifications. Policy makers should insist that TVET college management offer specialized in-service training to enhance lecturers' professional development. TVET colleges should be given more independence to determine their financial requirements. Short term assessor and moderator courses are deemed proper for improving lecturers' knowledge regarding teaching, learning and assessment. During the trainings, pre and post moderation processes should be emphasized so that lecturers are able to set tasks assessing students' cognitive skills from lower-level to higher-order and to ensure the fairness of the assessment.

Computer practice ICASS should be allocated more hours since it is a practical module to allow for fair assessment processes. The paperwork for lecturers should be reduced. The two files which include a subject file and an assessment file for each module should be merged into one single file for each individual module. The TVET college managements should set internal absenteeism policies that will assist in reducing absenteeism that affects effective assessment processes. In addition, it will enable lecturers to focus on effective teaching to complete the curriculum. The DHET should establish guidelines to ensure that students who fail to perform well in the first set of assessments are supported to achieve learning outcomes. This will assist to meet the diverse learning needs of the students. The TVET college management should appoint and train personnel to deal with counselling students on physical and emotional issues which affect their learning and eventually lead to poor achievement in assessments. College managements should carefully plan for and prioritize maintenance of the infrastructure and supply of equipment for productive assessment practices. Computer practice lecturers should incorporate diverse assessment modes when planning for teaching and learning that can prompt student learning. For example, simulations and case studies should also be used as assessment methods. Enough time should be set for teaching activities to enhance effective learning so that extra lectures can be offered to students with limited or no previous computer knowledge and encourage them to follow the lecturers' comments as assessment feedback. Future research should investigate the daily TVET college management roles on teaching, learning and assessment to ensure effective ICASS implementation of the computer practice module. A similar study should be conducted in colleges located in other provinces to explore whether lecturers share the same experience.

### Limitations

The study was limited to three selected TVET colleges located in KwaZulu-Natal province with two participants being interviewed from each college. This implies that the study was not representative of all the TVET colleges and lecturers in the province or the country and as a result, the findings cannot be generalized to all the TVET colleges and lecturers. In addition, the study adopted a qualitative approach with only two data collection methods - interviews and document analysis. This limited the quantity and quality of data that could be obtained if more methods such as observation were employed. The study focused on the computer practice module which also limited the scope of data as more information concerning the ICASS would be obtained if more than one module was to be considered. The COVID-19 pandemic was found to be a limitation. Owing to the protocols that needed to be followed to avoid contamination and the national lockdowns, it was found time consuming. The global pandemic brought numerous changes with regards to TVET college management plans, so at the time of data collection, participants busy attempting to close the gap created by the COVID-19 lockdowns.

### Acknowledgements

The researchers acknowledge the DHET for granting a permission to conduct the study at the three TVET colleges in KwaZulu-Natal province. The appreciation goes to the TVET colleges' campus managers and principals for the opportunity offered to conduct the study at their campuses. The lecturers, for voluntarily offering their precious time to share individual personal experiences regarding computer practice assessment practices and making their documents accessible is also acknowledged.

### Authorship Contribution Statement

Maja: Drafting manuscript, reviewing, conceptualize the design and supervision. Atukunda: Writing and analysis.

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