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Research Article Title:

**Assessing the Usefulness of Integrated Curriculum Assessment as a Formative Assessment Tool for
First Year Students.**

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Abstract

This study explored the usefulness of integrated curriculum assessment as a formative assessment tool for first year students. Two research questions from a higher education perspective were explored, namely how useful lecturers find Integrated Curriculum Engagement as an assessment tool to encourage student engagement and academic development, and what lecturers think Integrated Curriculum Engagement tasks have (value) to encourage students to actively engage with the learning content? The primary data for this study was generated from questionnaires distributed to 20 higher education respondents (lecturers). Findings that emerged were that the majority of respondents found value in the use of Integrated Curriculum Engagement (ICE) tasks within the classroom environment. Case studies, class tests and revision type questions encouraged the most engagement of students and students are generally more engaged and motivated when ICE tasks assist them with their preparation for assessments. The study provides recommendations for the development of a guide to provide clarity on the ICE requirements and expectations for lecturers.

Key words: Engagement; Interpretivism; Integrated Curriculum Engagement; Formative Assessments; Higher Education; Motivation.

1. Introduction

The study investigates how useful lecturers perceive Integrated Curriculum Engagement (ICE) as an assessment tool. ICE is a formative assessment tool that was introduced for the purpose of increasing student engagement with learning material, to develop the skills of the students, to encourage lecturers to integrate skills into their teaching and to identify students that are at – risk (ICE policy, 2013). Skills to be focused on during the use of ICE include digital literacy, academic writing, verbal communication, summarising and problem solving. In addition, the ICE tasks aimed at encouraging students to attend class, as lecturers would announce the ICE tasks in class.

A Private Higher Education Institution was audited in 2014 by the British Accreditation Committee (BAC) in order to obtain International accreditation. During the audit, members of the BAC showed great interest in ICE. However, questions were raised as to what research took place to evaluate whether these ICE tasks were achieving the intended results and how these ICE tasks were monitored for quality assurance purposes. These questions led to the need for this research.

This quantitative study examined the perceptions of the lecturers in terms of the usefulness of ICE as a tool to develop students academically and to improve student engagement. The study aimed to determine whether the lecturers find ICE useful as a tool to encourage student engagement and student academic development.

2. Description of the Problem

In 2012, the concept of ICE was introduced as an assessment tool to encourage student engagement (ICE policy, 2013). In 2013, ICE was implemented and carried a weighting of 5% towards a students' Continuous Assessment (CASS) mark. However as indicated in an audit by the BAC (2014) there is no research to substantiate or express the value of ICE. It is therefore necessary to determine whether lecturers actually perceive it as a valuable tool to encourage student engagement.

When ICE was introduced, very little control or structure was given to ensure that lecturers were conducting ICE in a fair and academically sound manner to add value to the learning progress of students. In 2014 the weighting of ICE was increased to 10% of the students' CASS mark. This is a significant contribution to the students' final mark and may influence student motivation, engagement and student academic development. Further exploration as to the value and relevance of ICE tasks were therefore required.

Related to the above, research questions that will be asked to solve the research problem are as follows:

- How useful do lecturers find ICE as an assessment tool to encourage student engagement and academic development?
- What value do lecturers think ICE tasks have to encourage students to actively engage with the learning content?

The desired outcome of this study is to identify and describe the perceptions of lecturers on the usefulness of ICE as an assessment tool to encourage student engagement.

3. Literature Review

According to Nicol and Macfarlane-Dick (2006), a formative assessment is an increasingly important area to study within the Higher Education context. Howell (2008) defines a formative assessment as the process used by lecturers and students during instruction that provides feedback which can be used to adjust ongoing teaching and learning to improve students' achievement of the intended instructional outcomes and objectives. The ICE tasks can be used to encourage the engagement of students and the integration of a variety of skills, including digital literacy, academic writing, verbal communication, summarising and problem solving, and knowledge, across modules. According to the ICE policy (2013), ICE is a formative assessment that should be carried out within, or outside the classroom. These assessment tasks encourage students to engage with the learning content and to apply this knowledge and develop required skills. Vygotsky's Zone of Proximal development (Heritage, 2010) has relevance to formative assessments as learning is described as a social process in which students collaborate with lecturers and other students to develop their cognitive structures, which are in the process of maturing, thus leading to student engagement.

In higher education, the summative assessment is often the focus, as this is the assessment that will distinguish whether the student passes a particular module or not. The final assessment mark is often seen as the finality of judgement. However, according to Ussher and Earl (2010), often the summative assessment is only an indication of whether the student can recall information learnt from the module and it does not necessarily test whether the student engaged with the material covered in the module.

In order for educators to ensure that students have a thorough understanding of the module contents and skills obtained, they need to confirm that the student has engaged with the material, participated in the classroom, related content of the module to the working world and are able to integrate learning from all modules within a specific programme (Nicol and Macfarlane-Dick, 2006).

This study is important, as evidence needs to be provided as to whether lecturers' feel that ICE tasks as a form of formative assessment add value to the learning experience. A substantial amount of research exists relating to student engagement, and it is this research that will aid with the further investigation of the perceptions of lectures on ICE.

Trumbull and Lash (cited Pellegrino, 2013) explain that formative assessments do not necessarily fall within a particular theory but, are generally seen as a constructivist way of learning. Research within this article stated that through cognitive processes students can build on their prior knowledge and assist the students in developing the necessary skills to control their learning (Vygotsky, in Heritage, 2010).

The Council on Higher Education (CHE) documents their research findings in a report called the South African Survey of Student Engagement (SASSE), (2010). This document compares results and findings of student engagement from many different countries, including, the USA, Canada, Australia, New Zealand and South Africa. The CHE conducted further research and participated in a student engagement research pilot project. This was carried out in collaboration with The University of the Free State (UFS). The SASSE identified student engagement patterns and strategies for engagement to address the level of academic challenge for students. The result of this survey found that many students felt that most of their time was spent on studying and on academic work, and insufficient time was spent on class participation and curriculum engagement (Strydom and Mentz, 2010). Student engagement patterns and strategies for engagement will be used in conjunction with the study on ICE.

One of the key roles of the ICE tasks is to encourage student engagement. According to Akey (Gibbs and Poskitt, 2006), student engagement can be defined as the level of participation and intrinsic interest that a student shows in the class. [✓](#) Engagement involves both behaviours and attitudes where engaged students seek out activities that lead to successful learning. Voke (2002), as cited in Newmann (2002), identifies that engagement promotes a higher quality of learning and is an important prerequisite for the development of understanding.

Bowen, as cited by Lester (2013), describes 'engagement' as a set of behaviours and different influences from experiences. The author comments on the theories related to engagement including thoughts on effects on students and teaching methods, learning environments, student cultures, peer influence, and extracurricular activities. According to Akey (Gibbs and Poskitt, 2006), student engagement can be defined as the level of participation and intrinsic interest that a student shows in the class. Engagement involves both behaviours and attitudes - engaged students seek out activities

that lead to success or learning. These components will be used to formulate the questionnaires given to lecturers to establish if lecturers perceive ICE to be a valuable assessment tool.

McMillan (2007) identified characteristics for assessment for learning, also seen as a form of formative assessment by stating that the assessment type should describe a need for future learning. The author suggests that formative assessments should be used to provide feedback to the student and should ultimately enhance student motivation. Similarly, Barkley (2010) states that if a lecturer's goal is to promote engaged learning, such engagement is more likely to be successful when students receive feedback on how well they did for their efforts. McMillan (2007) relates a formative assessment to student engagement in that the emphasis should include corrective assistance to the students. The feedback process should relate to the performance standards and strategies and should indicate progress and focus on effort attributions. Barkley (2010) adds to this that active learning is essential to, and motivates student engagement.

In order for formative assessment to be effective, the criteria for formative assessment should be applied. These criteria are that formative assessments need to be student centred and based on learning. High value must be placed on lecturer feedback, student engagement and student self-assessment (Nitko and Brookhart, 2011). Self and peer-assessment must be provided to the student to encourage cognitive thinking and finally a classroom culture of engagement and responsibility must be created.

4. Research Methodology and Design

The selected research methodology and design used to answer the research questions related to a quantitative research approach. Quantitative research can be seen as a reliable and objective way of gathering information (Vanderstroep, 2010).

4.1 Research paradigm and methodology

This research topic looked at the experiences and observations of the lecturers who have been using ICE as a tool for student engagement. According to Cohen, Manion and Morrison (2007), Interpretivism aims at creating an in-depth understanding of the topic, which in this case refers to whether lecturers perceive ICE as a useful assessment tool.

Interpretivism requires researchers to interpret elements of the study; thus integrates human interest into a study (Cohen *et al*, 2007). As the topic of the research aims to assess the usefulness of

ICE as perceived by the lecturers, Interpretivism is an appropriate paradigm from which to approach this research. As this is a preliminary and exploratory study, quantitative research will be used to answer the research questions.

4.2 Research design and data collection method

The data collection method used for this study was a questionnaire. A cross-sectional design in the form of a survey was used to gather the required data by making use of a number of questions aimed at gathering the required information relating to the perceptions of lecturers of ICE as an assessment tool. Questionnaires were chosen due to their usefulness for collecting information and that they can be administered without the presence of the researcher (Cohen *et al*, 2007).

The questionnaires were completed on an anonymous, voluntarily basis and was used to collect information pertaining to the usefulness of ICE tasks as a formative assessment tool from the chosen sample of lecturers. The questionnaire was selected as the most relevant data collection tool as it simplifies and quantifies answers and are relatively easy to complete (Crawford, [s.a]) and analyse.

A paper – and – pen type questionnaire was used and included both open-ended and closed-ended questions (Stringer, 2008). In addition to open-ended and closed-ended questions, semantic differentials and Likert scales were used in the questionnaire.

The survey was structured into different sections, containing a number of questions related to particular sections, which were based on a specific theme and built on the criteria previously identified in the literature review. A confidentiality clause was included at the beginning of the questionnaire to ease any discomfort experienced by the respondents. Descriptive statistics were used to describe and summarise the quantitative data collected in a meaningful way.

4.3 Research population and sampling

The population of this research was first year lecturers lecturing on a business-related qualification at a Higher Education Institution (HEI). According to Pascoe (du Plooy-Cilliers *et al*, 2013) all individuals in the chosen populations should share at least one characteristic that is relevant to the research question. The characteristics of a lecturer that falls into this chosen population is that these lecturers must be currently lecturing at a HEI. A further characteristic is that the lecturers in this population must be lecturing on business related degree qualification. These characteristics in the population can be referred to as the population parameters of this study.

The population of lecturers consists of full time permanent lecturers and independent contractors. There are approximately 60 lecturers in total.

Lecturers who have actively used ICE tasks within the classroom were chosen to complete the questionnaire. A non-probability sample was used as the researcher does not wish to generalise the perceptions of lecturers as these perceptions are the individual lecturers' opinions, (Cohen *et al* 2007) ideas and views on the usefulness of ICE as a learning tool. Purposive non-probability sampling was used as only lecturers who are currently using the ICE tool in their classrooms and who are meticulous about recording results and recording the submissions of these ICE tasks accurately were chosen to be a representative in this sample. A total of 20 questionnaires were returned. Two of these questionnaires were not completed correctly and have been discarded. A total of 18 questionnaires were therefore analysed to obtain information pertaining to the research questions.

4.4 Limitations applicable to the research

According to Enslin (du Plooy-Cilliers *et al*, 2013), a limitation can be seen as a constraint or limit to the research study. A limitation to this research may be that respondents for this study are lecturers at the same Higher Education Institution. These respondents may not be as honest in their responses as the researcher would like them to be as they are employees of the institution. A second limiting factor is the time frame in which the study must be completed. The researcher must ensure that questionnaires are not delivered during holiday period, as the majority of the potential respondents are not required to be on campus during holiday periods. To overcome this limitation, the researcher will ensure that questionnaires are made available during semester periods. A final limitation is that as this is an exploratory study and is limited in scope, there may be no generalisation.

4.5 Ethical considerations

As explained by du Plooy-Cilliers *et al* (2013), ethics can be seen as the researcher's morals and professional code of conduct. The ethics of research will affect the stakeholders who have invested in this research, namely, the respondents, academic institution, funding body and the researcher. To ensure that a high standard of ethics is achieved, the respondents of the research will remain anonymous and information provided from the respondents will remain anonymous.

The questionnaires contained an explanatory statement with information relating to the nature of the study and will explain the purpose of the study, as all respondents should know why they are taking part in a particular research study. According to Smith (2003) the informed consent must ensure that participants are participating voluntarily. There was no discrimination against any respondent who did not wish to participate in this study.

5. Data analysis

The completed questionnaires were collected and read through. Those questionnaires which were incomplete were discarded, two in total. Microsoft Excel was used to combine answers to the questions and percentages were compiled, which was then used to illustrate the results on graphs and diagrams. Microsoft Excel was used to work out average percentages per question, which assisted the researcher in the analysis of the results. Findings are presented according to categories, findings will be illustrated in graphs.

5.1 Section A: Integrated Curriculum Engagement

This section of the questionnaire focused on investigating the participation of lecturers in ICE and to determine how many ICE tasks are conducted in each module. Questions related to this section aimed at understanding when the ICE tasks were conducted. The following three figures illustrate these findings.

The first question asked respondents to indicate whether they are using ICE tasks. As can be seen from Figure 5.1, all 18 respondents use ICE tasks in their module.

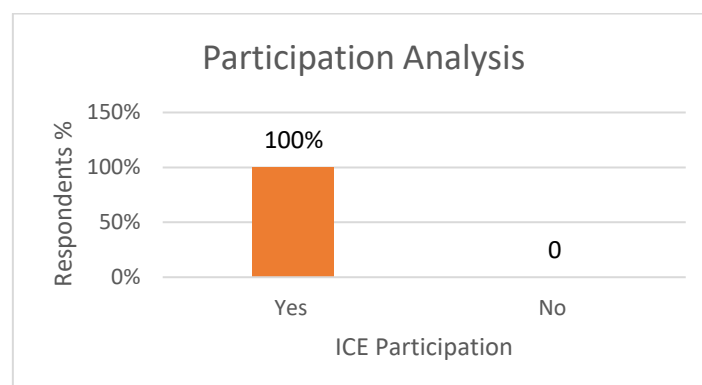


Figure 5.1: Participation Analysis

This links to a further question within the questionnaire that asked the respondents if they participated in ICE purely as it is a requirement of the Institution. Sixty-two percent (62%) of respondents indicate that they only complete ICE tasks because they are required to do so (illustrated in Figure 5.2).

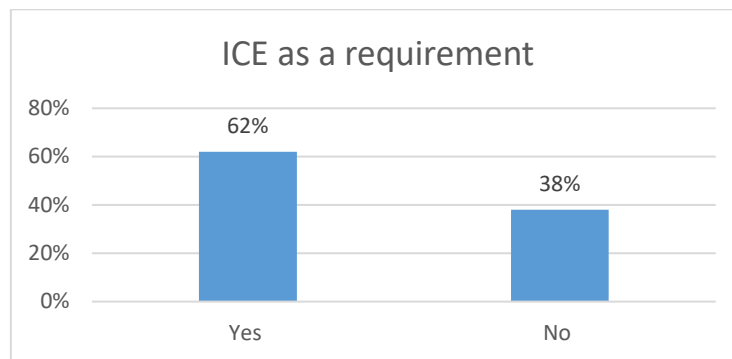


Figure 5.2: ICE as a requirement

In a follow-up question respondents were asked if they would willingly use ICE tasks even if it was not a prerequisite. Sixty-one percent (61%) of respondents indicated that they would use ICE task voluntary should they have a choice (illustrated in Figure 5.3).

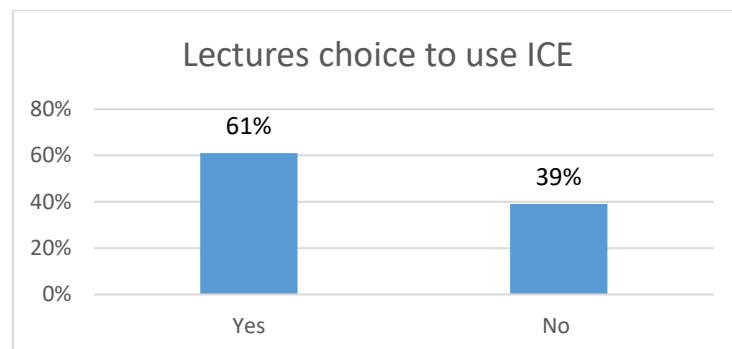


Figure 5.3: ICE as a choice

The implication of the findings of the above two figures shows that sixty-two percent (62%) of the respondents make use of ICE tasks as it is a requirement and sixty-one percent (61%) of the respondents would use ICE should there be a choice. This close alignment could indicate that these respondents would use ICE irrespective of it being a requirement or not.

Question 2 required respondents to indicate how many ICE tasks are completed per module. Of these 18 respondents, eighty-three percent (83%) of lecturers use between 5-7 ICE tasks in their

modules and seventeen percent (17%) using 1-4%. According to the Assessment policy (2015) a minimum of 4 ICE tasks are to be completed. This implies that there is a miscommunication between what is expected and what is required as the Assessment Policy of the Institution clearly states, the number of ICE tasks required (Assessment Policy, 2015).

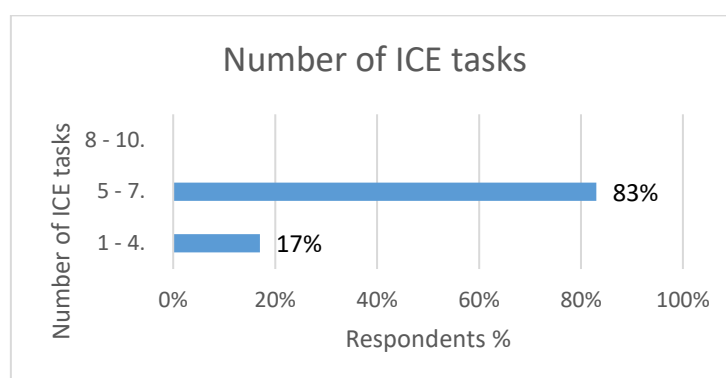


Figure 5.4: Number of ICE tasks used

Respondents identified that it is a requirement of their specific campus that a minimum of 6 ICE tasks must be completed, this is campus specific and is not a requirement of the Assessment policy (2015), on the basis of the abovementioned reference to the Assessment Policy. What appears evident from these findings is that there needs to be clarity as to how many ICE tasks should be completed and a standardisation of the number of tasks should be formalised as these results contribute to the CASS marks of the student.

Question 3 asked respondents to indicate the number of ICE tasks completed during or outside class time. Figure 5.5 below illustrates that eighty-three percent (83%) of the respondents' state that ICE tasks are completed during class as well as outside of class while seventeen percent (17%) of the lecturers identify that ICE tasks are only completed in class.

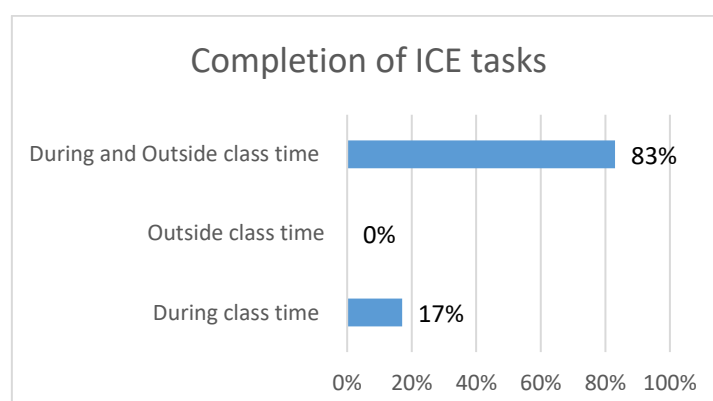


Figure 5.5: completion of ICE tasks

This figure shows that ICE tasks are used as in class activities as well as independent work for the student. In order to add value to students, a comfortable, safe and responsive environment must be created. According to Irvin, Meltzer and Dukes (2007), the study environment plays an important role in supporting the engagement and motivation of students. As every educator, will create a different learning environment, the students must learn to adapt to the different environments.

5.2 Section B: Student engagement

This section of the questionnaire asked lecturers how they perceived the students' engagement with ICE.

The aim of question 5 was to determine if respondents felt that the use of ICE encourages student engagement. Figure 5.6 provides the opinion of respondents on how the use of ICE tasks assists in the engagement of students with the learning material, most respondents are in agreement that ICE tasks do encourage student engagement with the learning material.

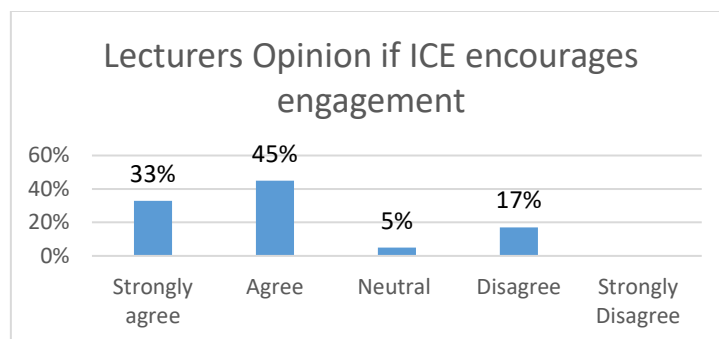


Figure 5.6: Lecturers opinion if ICE encourages engagement

The implications of this finding may be that respondents agree that ICE can be used to encourage student engagement. ICE tasks can be used as a tool to encourage students to attend class and in this way, promote continuous engagement with the module content by adding value and making class attendance worth the student's while. According to Nicol and Masfarlane-Dick (2006), for lecturers to ensure that students have a thorough understanding of the module, they need to confirm that the student has engaged with the material, engaged in the classroom, related content of the module to the working world and that the student can integrate learning from all modules within a specific programme. The common theme of society and interactions can be evident in a

structured and set curriculum, it is through the use of formative assessments, such as ICE, that engagement can be achieved (Nicol and Macfarlane-Dick, 2006).

Question 6 of the questionnaire related to the findings presented in Figure 5.7 and asked respondents how often the students are engaged with the ICE tasks. The figure below illustrates that students ask questions most of the time and are involved in activities and tasks.

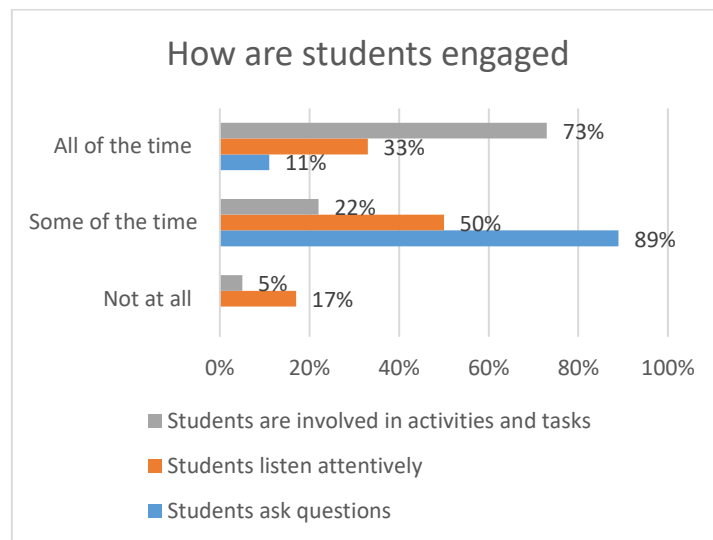


Figure 5.7: How are students engaged

These findings show that students are actively involved and participating during the ICE tasks, as stated in the ICE policy (2013), ICE is an assessment for learning tool that encourages student engagement through, for example, the use of relevant case studies and real life scenarios and through students actively participating. The findings from this question thus confirm that ICE tasks achieve its intended purpose of encouraging engagement.

As illustrated in Figure 5.8, Question 7 asked respondents to score the different kinds of ICE tasks according to how these engage the students. As shown in Figure 5.8 most students are most highly engaged when tasks are case study based, revision questions, and individual work and class tests. The students are least engaged in crossword puzzles and online research activities.

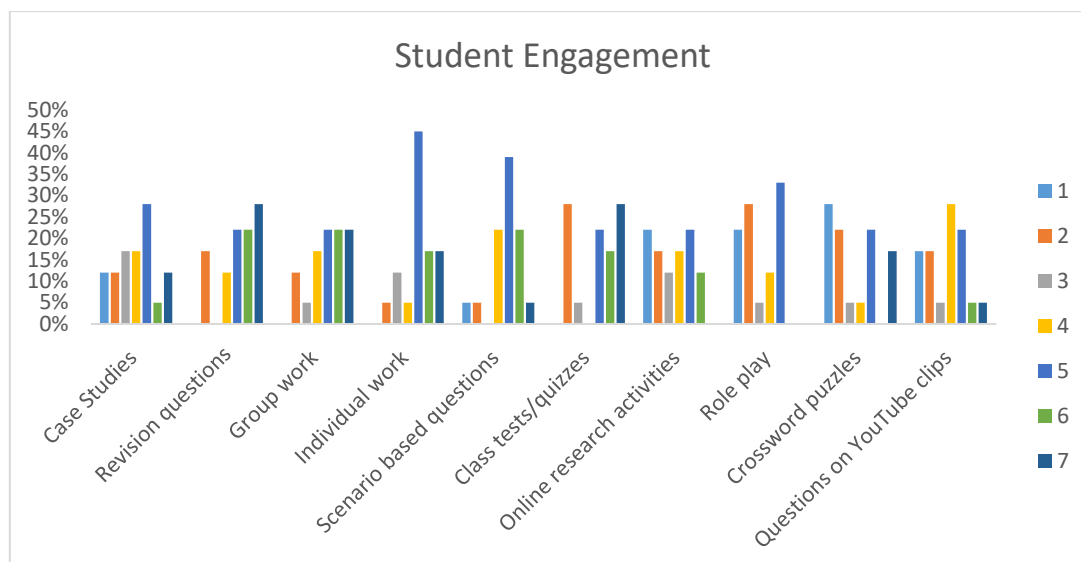


Figure 5.8: Student engagement

The implications of these findings show that students are more engaged when they can identify that the ICE tasks is preparing them for the assessments. As supported by the Assessment Policy (2015), each student engages with their learning in a different manner and it is important that each lecturer has the autonomy and responsibility to offer a variety of activities to students that will promote engagement and appropriate to the different learning needs of the students. According to Nicol and Macfarlane-Dick (2006) for lecturers to ensure that students have a thorough understanding of the module, they need to confirm that the student has engaged with the material, engaged in the classroom and relate content of the module to the working world.

5.3 Section C: Student motivation

This section of the questionnaire asked respondents how they perceived the students' motivation with ICE.

Figure 5.9 illustrates the findings of Question 8 which asked respondents if students willingly participate in ICE tasks. Sixty-two percent (62%) of the respondents felt that students participate in ICE tasks willingly.

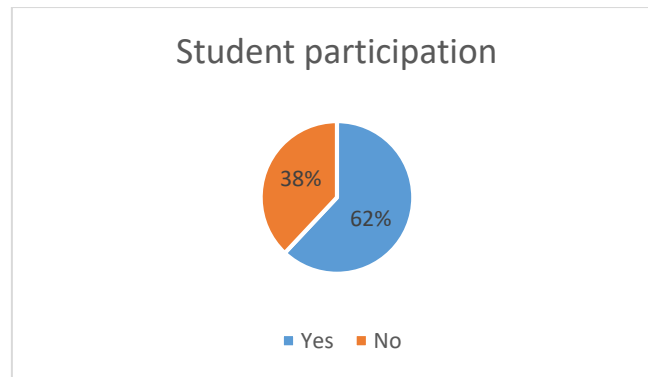


Figure 5.9: Student participation

This finding corresponds with the findings in Figure 5.2 and Question 11 of the questionnaire, which identified that sixty-two percent (62%) of respondents only completed ICE tasks as they are a requirement. This can show that should a respondent not see the importance of ICE as a tool for engagement, then so too will the students not see the importance and participation will thus be low.

Figure 5.10, presents the findings on whether ICE tasks motivated students. Revision questions and class tests and quizzes were rated as high motivators, whilst group work and role play activities were rated as low motivating tasks.

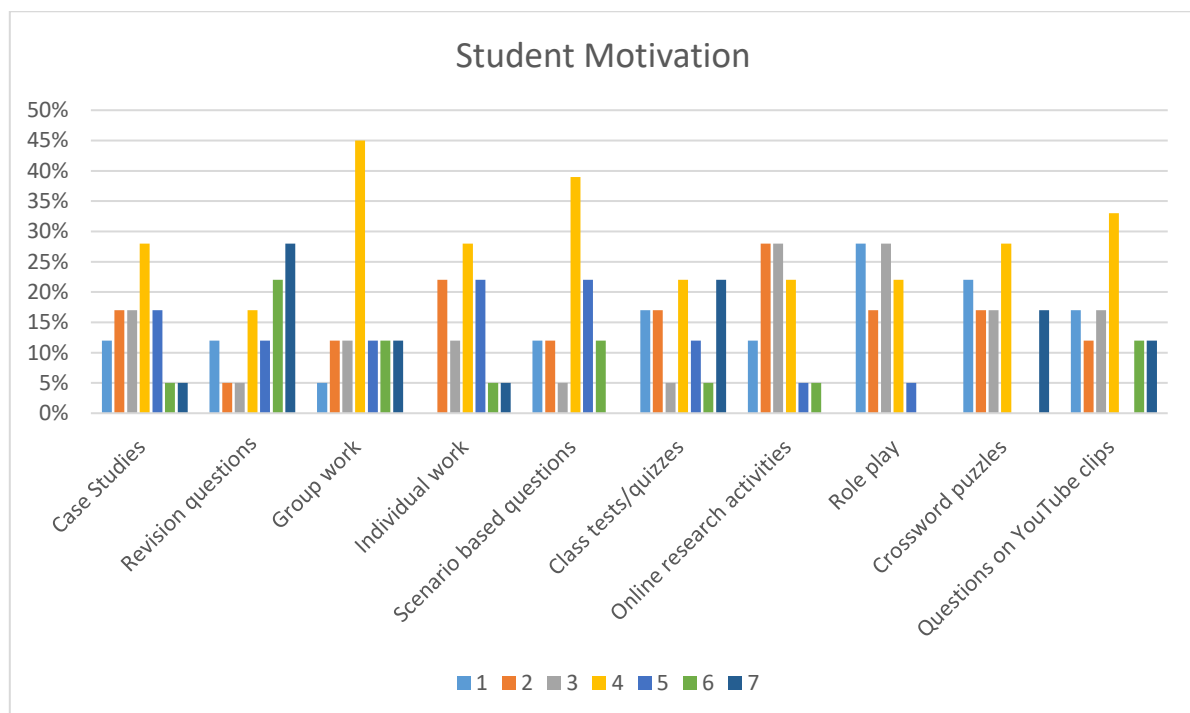


Figure 5.10: Student motivation

These findings suggest that students are more motivated in tasks that prepare them for assessments, but show some motivation in scenario based questions and questions related to YouTube clips, thus identifying how students wish to apply their knowledge to real world situations.

5.4 Section D: Value to lecturers.

This section of the questionnaire asked lecturers how they perceived the value of ICE.

Question 10 asked respondents whether they think ICE tasks add value to the module. As shown in Figure 5.11, seventy-two percent (72%) of respondents are in the opinion that ICE tasks add value to their module.

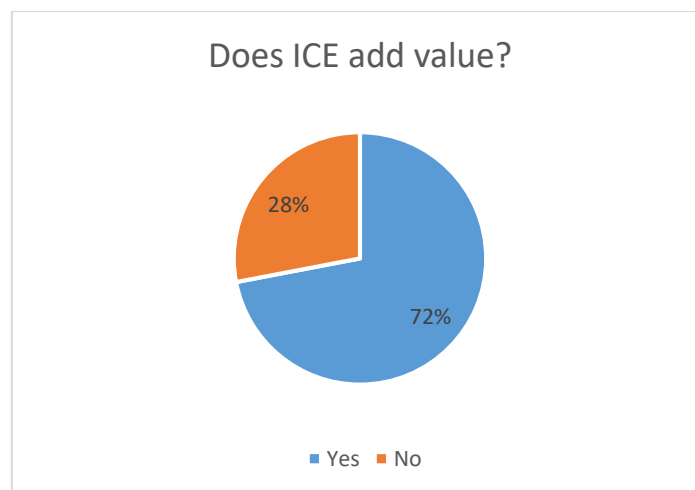


Figure 5.11: Does ICE add value

The implication of this finding is that a large percentage of the respondents feel that there is a benefit and a purpose for the use of ICE within their modules. These implications are supported in Figure 5.12 below, which shows that respondents feel that revision questions and class tests and quizzes add the most value. This is echoed through the findings above which identified that students are most engaged and motivated when participating in revision question tasks and class test tasks, as illustrated in Figure 5.8 and Figure 5.10.

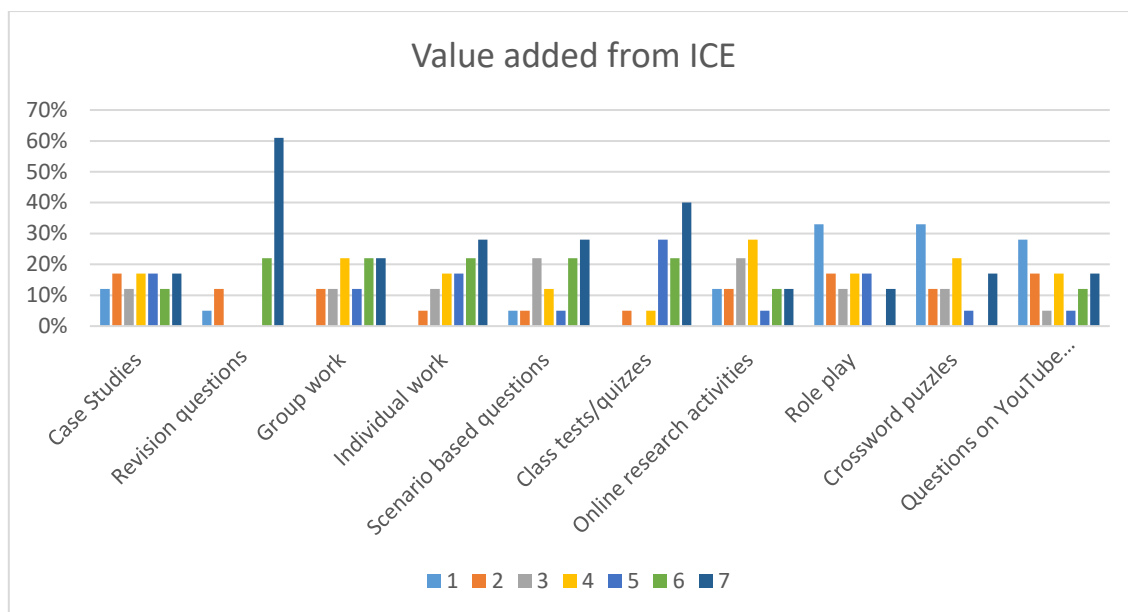


Figure 5.12: Value added from ICE

Question 14 asked respondents to provide an overall perception of ICE as a formative assessment tool and Question 15 gave the respondents the opportunity to provide any additional comments. Many comments were positive in nature, one respondent stated that ICE is a way in which a respondent can incorporate different teaching methods to make the class more fun and interactive, and another felt that ICE helps students to actively engage with content and allows respondents to gauge understanding. However, many respondents feel that it is additional work for them and that additional time should be allocated for ICE tasks to be completed. One respondent commented that ICE is a 'good, effective tool but time should be built into the pacer for effective execution and assessment of these tasks. Could be more effective if time can be allocated for marking, discussion etc.' A common comment that was raised, was that the number and types of ICE tasks should be dependent on the discipline of the module.

6. Discussion of findings

From the analysis of the data received, it can be seen that most respondents perceive ICE tasks as a valuable tool for student engagement and make use of ICE tasks within their classroom. As stated by Strydom and Mentz (2010), many students feel that most of their time is spent on studying and on academic work, and feel that there is insufficient time spent on curriculum engagement and classroom participation. A pattern was identified through the questionnaires that most respondents conduct ICE tasks within the classroom, with few tasks taking place outside the classroom

environment. In order to increase student engagement, more interactive tasks should be completed within the classroom and the more revision type tasks should be completed outside of the classroom. This should improve participation and engagement within the classroom.

The findings of the data collected relating to the different types of tasks used and identifying which of these tasks create engagement, enhance motivation and add value to respondents, can help assist the research and the respondents in identifying which tasks to focus on. The types of tasks that were continuously rated high were: revision questions, class tests and quizzes, case studies and scenario based questions.

Lecturers were asked to provide an opinion on how their students find ICE tasks, most respondents felt that their students found ICE to be relatively interesting, challenging and effective. Akeys' (Gibbs and Poskitt, 2006) statement, highlighted in the literature review can be supported by the preferred choice of ICE tasks – students are generally more engaged and motivated when ICE tasks assist them with their preparation for assessments which would ultimately lead to the success and learning of a student. This is further supported in the results of the questionnaire which illustrated that respondents stated that students ask questions and are involved in class activities and tasks most of the time.

7. Recommendations

Barkley (2010), states that student motivation and engagement is individually referenced and not all students will be motivated and engaged by completing the same activities. Lecturers using ICE tasks within the classroom environment should ensure that a variety of ICE tasks are used to address the different learning styles and learning preferences of all students. Many comments were made at the end of the questionnaire stating that ICE tasks should be standardised. This is an almost impossible task as ICE tasks would have to be set at a National level, not only do students within the same classroom have different styles and preferences, but students across campuses and provinces will have different styles and preferences. It is therefore recommended that lecturers develop ICE tasks that are applicable to each group of students, and develop a variety of different types of tasks.

A clear 'How to Guide' should be developed and distributed to all lecturers across campuses to guide lecturers in the use of ICE tasks. This guide should contain a clear purpose of ICE, guidelines on how to develop these tasks and a number of sample ICE tasks could be included. The specified requirements should be clearly stated as well as the number of ICE tasks that should be completed to contribute towards the CASS mark of the student. By developing such a guide a standardised

approach to ICE may begin to exit as lecturers would have a better idea of what the expectations are relating to ICE

A common comment raised, in Question 15, was that the ICE tasks are administratively heavy and lecturers have insufficient time to complete the tasks effectively. Once lecturers have a clear idea of what is expected, they will begin to see that these tasks do not have to create additional work nor do they have to become tedious tasks. As a formative assessment student feedback is essential, lecturers should not feel that this must be lengthy, time consuming feedback to the students. Self-assessment should be encouraged as this teaches the students to self-reflect and learn through correction.

By ensuring that all lecturers have a clear understanding on the requirements and expectations of ICE, more lecturers may find more value in using ICE tasks.

8. Conclusion

After a thorough analysis of the questionnaire results and a detailed study of previous research, an overall perception of the value of ICE tasks was identified and based on the above mentioned findings it can be seen that the majority of lecturers included in the sample find ICE to be an effective and valuable tool for engagement. What appeared evident is the misconception and misunderstanding of what the requirements of ICE may be. With the development of a guide outlining the purpose and requirements of ICE, a clear understanding will exist and more lecturers should find more value in using ICE tasks.

To further understand the value of ICE, an extension of this study should be conducted based on the perception of lecturers based on different sites and at different brands. Further to this, the perceptions of students could be explored as it would be valuable to assess whether the students find value in ICE tasks and whether they feel the tasks are beneficial to their learning.

“People must be taught how to think, not what to think.”

— Margaret Mead

Bibliography

Barkley, E.F. 2010. *Student engagement techniques: a handbook for college faculty*. San Francisco: John Wiley and Sons Inc.

Black, P.J and Wiliam, D. 1998. *Assessment and Classroom Learning, Assessment in Education: Principles, Policy and Practice*. . [Online]. Available at: <http://area.fc.ul.pt/en/.../Assessment%20and%20classroom%20learning.doc>. [Accessed 2014 07 22].

Braun, V and Clarke, V. 2006. *Using thematic analysis in psychology*. [Online]. Available at: http://eprints.uwe.ac.uk/11735/2/thematic_analysis_revised....html. [Accessed 2014 08 01].

Cohen, L., Manion, L. and Morrison, K. 2007. *Research methods in education*. Routledge: Abingdon.

Crawford, IM. [s.a]. *Questionnaire Design*. [Online]. Available at: <http://www.fao.org/docrep/w3241e/w3241e05.htm>. [Accessed 2014 05 15].

Dewey, J. What is the purpose of education? 2012. [Online]. Available at: http://www.ascd.org/ASCD/pdf/journals/ed_update/eu201207_infographic.pdf. [Accessed 2014 07 20].

Du Plooy-Cilliers, F., Davis, C. and Bezuidenhout, RM. 2014. *Research Matters*. Juta: Cape Town.

Gibbs, S and Poskitt, J. 2010. *Student engagement in the middle years of schooling*. [Online]. Available at: www.eductioncounts.govt.nz/publications. [Accessed on 2014 03 17].

Hattie, J. 2003. *Formative and Summative interpretations of assessment information*. [Online]. Available at: [https://cdn.auckland.ac.nz/assets/education/hattie/docs/formative-and-summative-assessment-\(2003\).pdf](https://cdn.auckland.ac.nz/assets/education/hattie/docs/formative-and-summative-assessment-(2003).pdf). [Accessed on 2014 12 10].

Heritage, M. 2010. *Formative assessment and next generation assessment systems: are we losing an opportunity?* [Online]. Available at:

https://www.google.co.za/?gfe_rd=cr&ei=K0HeU_30EYPd8geG2oGABw&gws_rd=ssl#q=Formative+assessment+and+next+generation+assessment+systems%3A+are+we+losing+an+opportunity%3F+%5B. [Accessed 2014 08 01].

Hooper, R. [s.a.] *Justifying sample for a feasibility study*. [Online]. Available at:

<http://www.rdslondon.co.uk/RDSLONDON/media/RDSContent/copy/Justifying-Sample-Size-for-a-Feasibility-Study.pdf>. [Accessed 2014 08 01].

Howell, S. 2008. *Formative Assessment*. [Online]. Available at:

http://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&uact=8&ved=0CBsQFjAA&url=http%3A%2F%2Fwww.gpaea.org%2Fdocuments%2Ffilelibrary%2Fhomepage_images%2Fservices%2Fschool_improvement%2Fdesign%2Fformative_assessment_A11B7E9CACD0E.doc&ei=o5HeU9SrloeM7QaAn4DoBQ&usg=AFQjCNEMRjvnZ3o5XOFjLye5b_mmanRcHQ&sig2=HSQgj0Dy2Z6hKtVTck9V2Q. [Accessed 2014 08 01].

Irvin, J., Meltzer, J. and Dukes, M. 2007. *Taking Action on Adolescent Literacy*. ASCD: Virginia.

Jacobs, M., Vakalisa, NCG and Gawe, N. eds. 2011. *Teaching-learning dynamics*. Cape Town: Pearsons Education South Africa.

Krausse, K. 2005. *Understanding and promoting student engagement in university learning communities*. [Online]. Available at:

https://cshe.unimelb.edu.au/resources_teach/teaching_in_practice/docs/Stud_eng.pdf. [Accessed 2014 03 17].

Kumar, S and Ahmad, S. [s.a]. *Meaning, aims and process of education*. [Online]. Available at:

<https://sol.du.ac.in/Courses/UG/StudyMaterial/16/Part1/ED/English/SM-1.pdf>. [Accessed 2014 07 20].

Lavrakas, PJ. 2008. *Encyclopaedia of survey research*. [Online]. Available at:

<http://srmo.sagepub.com/view/encyclopedia-of-survey-research-methods/n571.xml>. [Accessed 2014 05 16].

Lester, D. 2013. *A review of the student engagement literature*. [Online]. Available at: <http://www.nationalforum.com/electronic%20journal%20volumes/lester,%20derek%20a%20review%20of%20the%20student%20engagement%20literature%20focus%20v7%202013.pdf> [Accessed 2014 03 17].

Levin, K.A. 2006. *Study design III: Cross-sectional studies*. [Online]. Available at: <http://www.nature.com/ebd/journal/v7/n1/full/6400375a.html>. [Accessed on 2014 12 11].

Mackenzie, N and Knipe, S. 2006. *Research dilemmas: Paradigms, Methods and methodology*. Issues in Educational Research, Vol. 16, 2006. [Online]. Available at: <http://www.iier.org.au/iier16/mackenzie.html> [Accessed 2014 05 13].

Matveev, A.V. 2002. *The advantages of employing quantitative and qualitative methods in intercultural research: practical implications from the study of the perceptions of intercultural communication competence by American and Russian managers*. [Online]. Available at: http://www.russcomm.ru/eng/rca_biblio/m/matveev01_eng.shtml. [Accessed on 2014 12 11].

McCroskey, J.C., Prichard, S.V.O., and Arnold, W.E. (s.a.) *Attitude intensity and the neutral point on semantic differential scales*. [Online]. Available at: <http://www.jamescmccroskey.com/publications/31.htm>. [Accessed on 2014 12 11].

McMillan, J.H. 2007. *Classroom assessment: principles and practice for effective standards-based instruction*. Boston: Pearson Education Inc.

Mead, M. 2015. *Goodread Quotes*. [Online]. Available at: <http://www.goodreads.com/quotes/search?utf8=%E2%9C%93&q=education+&commit=Search>. [Accessed on 2015 09 11].

Nicol, D.J and Macfarlane-Dick, D. 2006. *Formative assessment and self-regulated learning: a model and seven principles of good feedback practice*. [Online]. Available at:

<http://www.lyderiulaikas.smm.lt/Atsisi%C5%B3sti%20failus:/article/1044/Formative%20assessment%20and%20self-regulated%20learning.pdf>. [Accessed on 2014 12 08].

Nikto, A.J and Brookhart, S.M. 2011. *Educational Assessment of students*. Boston: Pearson Education Inc.

Olsen, C and St George, D.M. 2004. *Cross-sectional study design and data analysis*. [Online]. Available at: http://www.collegeboard.com/prod_downloads/yes/4297_MODULE_05.pdf. [Accessed on 2014 12 11].

Smith, D. 2003. *Five principles for research ethics: cover your bases with these ethical strategies*. [Online]. Available at: <http://www.apa.org/monitor/jan03/principles.aspx>. [Accessed 2014 08 01].

Stringer, E. 2008. *Action research in education*. Pearson: New Jersey.

Strydom, JF and Mentz, M. 2010. *Focusing on the student experience through student engagement*. CHE. Pretoria. Jacana Media. [Online]. Available at: http://www.che.ac.za/sites/default/files/publications/SASSE_2010.pdf [Accessed 2014 03 17].

Trochim, M.K. 2006. *Ethics in research*. [Online]. Available at: <http://www.socialresearchmethods.net/kb/ethics.php>. [Accessed 2014 08 01].

Trowler, V and Trowler, P. 2010. *Student engagement evidence summary*. The Higher Education Academy. [Online]. Available at: http://www.heacademy.ac.uk/assets/documents/student_engagement/studentengagamentevidencesummary.pdf [Accessed 2014 03 17].

Trumbell, E, & Lash, A. 2013. *Understanding formative assessments. Insights from learning theory and measurement theory*. [Online]. Available at: http://www.wested.org/online_pubs/resource1307.pd. [Accessed 2014 03 17].

Ussher, B and Earl, K. 2010. Summative and formative: confused by the assessment. [Online]. Available at: http://www.teacherswork.ac.nz/journal/volume7_issue1/ussher.pdf. [Accessed on 2014 12 10].

Vanderstroep. S.W. 2010. *Research Methods*. [Online]. Available at: <http://research-methodology.net/research-methods/>. [Accessed on 2014 12 11].

Voke, H. 2002. *Motivating students to learn*. [Online]. Available at: <http://www.ascd.org/publications/newsletters/policy-priorities/feb02/num28/motivating-students-to-learn.aspx> [Accessed 2014 03 17].

Warde, W.F. 2005. *John Dewey's theories of education*. [Online]. Available at: <https://www.marxists.org/archive/novack/works/1960/x03.htm>. [Accessed 2014 07 20].

York. 2008. *Improve learning through formative assessment*. [Online]. Available at: <http://meds.queensu.ca/assets/improve-learning-through-formative-assessments.pdf> [Accessed 2014 03 13].

Yount, R. 2006. *Populations and sampling*. [Online]. Available at: http://www.napce.org/documents/research-design-yount/07_Sampling_4th.pdf. [Accessed 2014 05 16].

Annexure

Dear Respondent

The purpose of this questionnaire is to investigate how useful lecturers perceive Integrated Curriculum Engagement (ICE) as an assessment tool to be.

ICE is a formative assessment tool that aims to develop the skills of the students, to encourage lecturers to integrate skills into their teaching and to identify students that are at risk. As a lecture using ICE you are requested to participate in this research by completing the questionnaire. Your contribution will be used to assess the usefulness of ICE as a formative assessment tool. Your contribution to this study is appreciated and valuable.

Your responses are voluntary and you will remain anonymous. I request that you answer the questions truthfully and accurately.

Should you have any questions or concerns, please contact Sarah Williams at 14009091@iieconnect.co.za.

Many thanks

Sarah Williams

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Section A: Integrated Curriculum Engagement

Please mark the most appropriate answer with a tick (✓)

Question 1: Do you use ICE tasks in your module?

YES	NO
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Question 2: If you answered yes to Question 1, how many ICE tasks do you use in a module that you teach?

1 – 4	5 – 7	8 – 10
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Question 3: Do students complete these ICE tasks in class time or outside of class time? Please tick the relevant box

During class time	Outside class time	During and Outside class time
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Question 4: Provide an opinion related to ICE tasks.

On the scales below, please circle where you feel your students generally fall on the scale.

Students find ICE tasks to be:

a. Boring	1	2	3	4	5	6	7	Interesting
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b. Easy	1	2	3	4	5	6	7	Challenging
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c. Ineffective	1	2	3	4	5	6	7	Effective
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Section B: Student engagement:

Please mark the most appropriate answer with a tick (✓)

Question 5: An ICE task encourages students to engage with the learning material.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Question 6: In what way are students engaged in the lecture when you use ICE tasks?

Please mark the most appropriate answer with a tick (✓)

Criteria	Frequency		
	1	2	3
1) Students ask questions			
2) Students listen attentively			
3) Students are involved in activities and tasks			
Coding: 1 = not at all 2 = some of the time 3 = all of the time			

Question 7: On a scale of 1 – 7, rate the following types of ICE activities in relation to student engagement.

One representing extremely LOW engagement and seven representing extremely HIGH engagement.

Please mark the most appropriate answer with a tick (✓)

ACTIVITIES	1	2	3	4	5	6	7
Case studies							
Revision questions							
Group work							
Individual work							
Scenario based questions							

ACTIVITIES	1	2	3	4	5	6	7
Class tests/quizzes							
Online research activities							
Role play							
Crossword puzzles							
Questions on YouTube clips							

Section C: Student motivation

Please mark the most appropriate answer with a tick (✓)

Question 8: Do the students willingly participate in ICE tasks?

YES	NO
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Question 9: On a scale of 1 – 7, rate the following types of ICE activities in relation to student motivation.

One representing extremely LOW motivation and seven representing extremely HIGH motivation.
Please mark the most appropriate answer with a tick (✓)

ACTIVITIES	1	2	3	4	5	6	7
Case studies							
Revision questions							
Group work							
Individual work							
Scenario based questions							
Class tests/quizzes							

ACTIVITIES	1	2	3	4	5	6	7
Online research activities							
Role play							
Crossword puzzles							
Questions on YouTube clips							

Section D: Value to lectures

Please mark the most appropriate answer with a tick (✓)

Question 10: Do ICE tasks add value to your lectures?

YES	NO
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Question 11: Do you complete ICE tasks because they are a requirement?

YES	NO
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Question 12: If you had a choice, would you use ICE tasks?

YES	NO
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Question 13: On a scale of 1 – 7, rate the following types of ICE activities in relation to how much value they add to your lectures.

One representing extremely LOW value and seven representing extremely HIGH value. *Please mark the most appropriate answer with a tick (✓)*

ACTIVITIES	1	2	3	4	5	6	7
Case studies							
Revision questions							
Group work							
Individual work							

ACTIVITIES	1	2	3	4	5	6	7
Scenario based questions							
Class tests/quizzes							
Online research activities							
Role play							
Crossword puzzles							
Questions on YouTube clips							

What is your overall perception of ICE as a formative assessment tool?

Please provide any additional comments that you would like to share about the use of ICE tasks.

Thank you for your valuable contribution.

Sarah Williams

¹. The Independent Institute of Education. *ICE policy*. 2013.

². Gibbs, S and Poskitt, J. 2010. *Student engagement in the middle years of schooling*. [Online]. Available at: www.eductioncounts.govt.nz/publications. [Accessed on 2014 03 17].

³. Romando, R. 2007. *Student Motivation*. Available Online: <http://ezinearticles.com/?Student-Motivation&id=410699> [Accessed on 2015 03 10].