Module: Old and New Testament 144
Lecturers: Prof Louis Jonker lcj@sun.ac.za & Prof Marius Nel mjnel@sun.ac.za
Blended Learning Coordinator: Ms Magriet de Villiers mdev@sun.ac.za

Learning activity:
Attendance and immediate feedback assessment

Learning technology:
Clickers

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Context

Subject area

Old and New Testament 144 serves as a second-semester introductory and orientating module about the study of Biblical narratives in the Old and New Testament within their respective socio-historical contexts. The nature of the narrative genre and ancient historiography, together with the use of appropriate methodologies, is studied. In the Old Testament section, the Deuteronomistic history, Ezra-Nehemiah and Chronicles are highlighted. In the New Testament section, the focus is on Acts (together with aspects of the Synoptic Gospels).

The challenge

In this module, class attendance is mandatory and contributes 10% to the continuous assessment mark. Traditionally, class attendance was taken using the paper-based method at the start of the class. Not only did attendance marks have to be input by the lecturer or tutor onto a separate Excel grading sheet but there was also a risk that the information could get lost. Students also misused the system by writing down their absent friends' names. The challenge was therefore to find a technological intervention that would make the process more user-friendly and convenient. The traditional paper-based approach was a purely administrative activity and did not provide a teaching or learning opportunity that contributed to the students' classroom experience. Part of the aim and challenge was to find a system that could also serve as an applicable teaching and learning activity.

Advantages associated with the integration of technology

The aim of the activity was to gauge students' understanding of key terms, concepts and ideas communicated in the prescribed material and the lecture. By using the Clicker system and viewing the analysis in the classroom, the lecturer and the students could instantaneously see where there were misunderstandings and misconceptions of the content that needed to be addressed. These could be addressed in the classroom by further discussions of the question and the correlating content.

As mentioned, class attendance is mandatory in this module and, in the past, was taken using the traditional paper-based method. In order to provide further incentive for students to participate in the learning activity, the Clicker analysis was used as an attendance tool. This was done by linking the Clicker participants to their student numbers, allocating them a general attendance mark for participating in the activity and uploading the attendance mark to the SUNLearn gradebook. The attendance mark allocated was not related to the students' answers, either correct or incorrect, as this aspect of the activity was to ascertain their attendance and not their understanding.

**Figure 1: Students completed a Clicker activity for attendance

Student overview

The student body consisted of 87 students and included first-year attendees and second-year repeaters. All these students had previously completed the Old and New Testament 114 first-semester module, which focused on a broad overview of the art and science of biblical interpretation and included attention to the text, context and reception of the Bible. The general topic regarding the Old and New Testament was therefore not completely unknown to the participating students.

Other relevant role-players

This module makes use of parallel-medium teaching, with lectures and

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tutorials divided into English and Afrikaans groups. In order to ensure that all the students have simultaneous class times, the English lectures take place at the same time as the Afrikaans tutorials and vice versa. Tutors – one English and one Afrikaans – are responsible for the tutorials, with one lecturer attending to both language-group lectures.

The blended learning coordinator (BLC) provided the lecturers and tutors with training and a written procedure on setting up the activity. Being older students, the tutors already had some experience with the Clicker system and were familiar enough with SUNLearn to navigate the activity quite easily after the one short training session and after being provided with the written procedure. The BLC also created and facilitated the introductory Clicker session with the classes.

The Clicker activity simultaneously took place in the lectures and tutorials on the appointed dates and at the appointed times and the tutors took responsibility for the activity during the tutorials.

The BLC also facilitated the downloading of the analysis and the uploading of the marks to the SUNLearn gradebook.

Learning and assessment activities
Educational approach
The analysis tool of the Clicker system provides the opportunity for the lecturers and tutors to see instantaneously how many students answer a question correctly and which wrong answer creates the most confusion. This proves to be a valuable tool, as it provides the opportunity to facilitate effective teaching and learning dialogue (Laurillard, 2012) in the classroom. Discussions between the lecturers and tutors and the students and amongst the students themselves help to resolve misunderstandings and misconceptions about the work whilst also providing the space for the students to reflect on their own learning process and progress and the lecturers on their teaching practice.

Learning activities
As most participating students were first-year university attendees, they were not overly comfortable with or adept at the SUNLearn learning management system and did not have a lot of experience of different technology-based activities. Through an informal classroom poll, students indicated that they had heard of the Clicker system on campus but that the overall majority had not previously completed such an activity and were unfamiliar with the process. Repeaters of the module had no obvious benefit of prior knowledge regarding the questions or the procedure, as this activity was newly introduced to the module.

**Figure 2: The first completion of a Clicker activity was guided and supervised

In order to ensure the effective and uncomplicated use of the Clicker system, the first completion of the activity was guided and supervised in the classroom by the BLC and the lecturer. Students were requested to connect to Maties WiFi, to complete the activity by using their personal cell phone and/or laptop or tablet and to follow the verbal and PowerPoint instructions provided. A few students did not have the necessary personal devices – as indicated by an informal poll taken by the lecturer at a previous lecture time – and those were asked to make use of their peers' devices or of the classroom computer at the lectern. In such instances, it was clearly communicated to these students to make sure that they were logged in on their own profiles in order to ensure that their participation and attendance were correctly documented.

With the completion of the introductory Clicker activity, the lecturers allocated four other dates for the activity based on the weeks available. The students were informed that attendance would not be taken at every classroom opportunity but that they would not know on which dates the activity would take place. As this was also being used as a teaching

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and learning tool, the activity would not necessarily be completed at the beginning of a lecture but would take place at a content-appropriate time. In order to ensure that absent students could not falsely achieve an attendance mark, each Clicker activity was created anew and therefore had a new, unknown Clicker number with which the attendees had to sign in. The Clicker number was shown at the appropriate time in the classroom via PowerPoint and the students had only one minute to complete the activity, thereby limiting the possibility of students sharing the Clicker number with others.

After each activity, the analysis was discussed in the classroom and feedback was provided. Students had the opportunity to take part in this discussion by indicating if and how they struggled with the question and why they chose their answer. This created the opportunity for peer-learning and for students to further their understanding of the work. Each analysis was exported to an Excel sheet where the participants' student numbers were indicated. The participants received one mark each for the completed activity, regardless of whether they gave an incorrect answer or not, which was imported into the SUNLearn gradebook.
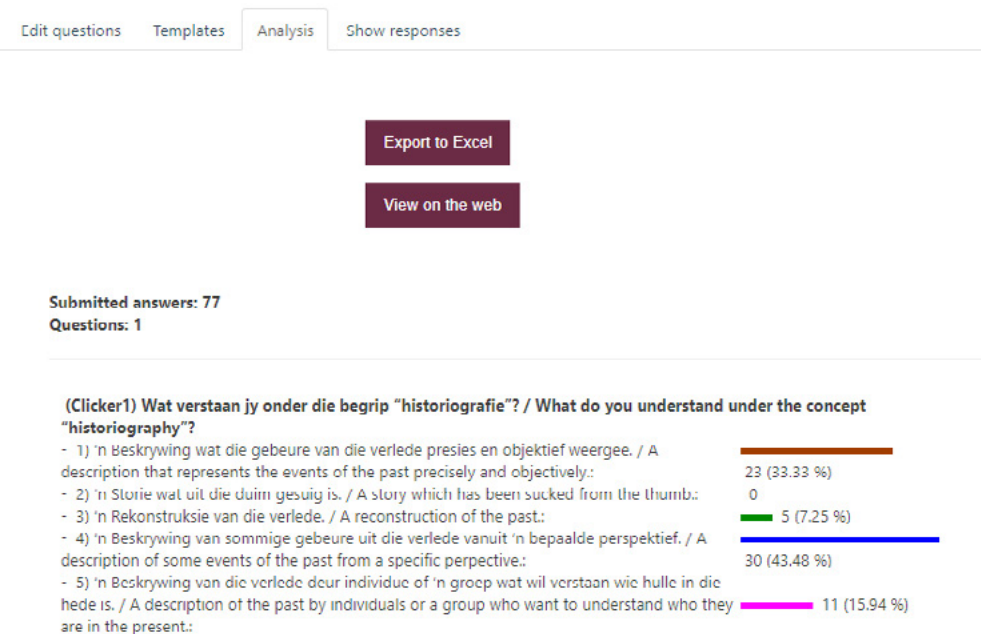

Figure 3: Screenshot of analytics received after the Clicker completion

Learning environment
Technology resources
The Clicker system was chosen as the main technological resource for multiple reasons:

1. It provides an analysis of the answers provided that can be used for immediate feedback and discussion in the classroom.

2. Every answer is linked to the student numbers of the participants and creates a database that can serve as an attendance sheet.

3. It is created on SUNLearn and lecturers and tutors therefore do not need to learn a completely new skill set or use an unknown resource.

4. There are no expenses associated with extra technological gadgets or high internet costs. Students can use their own devices and connect to the University WiFi.

5. The Clicker system is used throughout the University and campus-wide technological support and advice are available if needed.
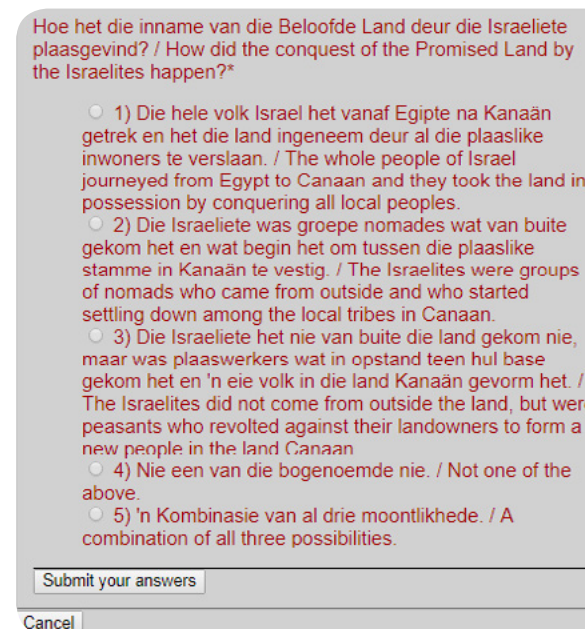

Figure 4: Screenshot of how a student sees the Clicker

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Support challenges

The lecturers and tutors, with the BLC on standby, were available in the classroom to guide and assist students with any support challenges during the activity. The introductory session that enabled step-by-step assistance for the first activity provided students with a good foundational understanding of the use of the Clicker system. Students who had not attended the introductory session were a bit unsure of the process and needed some extra assistance to complete the activity.

The use of classroom computers and peer devices by students who did not have their own proved to be a bit problematic and some students felt rushed to complete the activity. One student used a peer's device for the completion of the activity and did not log in with his own student number. The student realised his error only when he checked the SUNLearn gradebook at the end of the semester but by then it was too late to verify that he had participated and he therefore forfeited the marks.

Student experience
Student feedback on the learning experience

In the introductory activity session, the students voiced their insecurity in using an unknown technological intervention and were worried that their inability to complete it correctly would result in their being unfairly penalised. Those who did not have their devices in the classroom on that day were very nervous of using their classmates' devices or the classroom computer. Due to the above-mentioned issues, the activity did take longer than one minute (it took approximately two minutes) and the students were sceptical of its efficacy.

Through classroom observation, the lecturers and tutors discerned a rising level of student comfort in later classes, which was reflected in the students' capacity to complete the activity in the allotted time. Informal discussions with students regarding the activity indicated that, although they preferred the quick and easy paper-based system, they understood the dual purpose of the activity and found it to be a helpful tool in the classroom.

General
Opportunities

The administrative element of this activity worked well and provided the necessary attendance information. The lecturers and tutors found the formative teaching and learning element of this activity to be very fruitful, providing insight into the students' understanding of the module content. The fact that misunderstandings and incorrect facts could be addressed instantaneously served to aid classroom discussions and, although students may not initially have perceived the benefit, it did seem to have a positive impact on their overall performance. A possible underlying reason for this positive impact (and an overlooked opportunity of the formative teaching and learning element of this activity) was that this approach addressed some questions that shy or quiet students may have had but were too afraid to voice in front of their peers.

Challenges

Although the gathering of attendance information was unproblematic, the uploading of accurate information onto the SUNLearn gradebook was not straightforward. For someone who is not familiar with the process, the different importing methods, along with encoding data and the use of verbose and non-verbose scales, can be very confusing.

Advice

The lecturers would give the following advice to those who want to implement a similar learning activity in their module:

- It is important that the questions used in this dual-purpose activity be unambiguous and short. This enables students to complete the activity in the allotted time and ensures that they receive their attendance mark and that they understand the question, therefore bolstering the learning element of the activity.

- If students use their peers' devices, the students need to be reminded to log on with their own student number in order to receive their personal attendance mark. One student in this group repeatedly forgot to do so and did not receive an attendance mark as there was no other way to verify his participation.

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- An introductory session is a valuable opportunity to provide step-by-step assistance and answer important questions. This promotes student support of the new approach and gives students the needed confidence to complete the activity successfully.

Other concluding thoughts

The Clicker activity worked well in this dual purpose, as it not only worked well as a technological administrative tool but acted as a formative activity that assisted students in reaching the intended learning outcome, namely the understanding of the module's key concepts, terms and ideas. One unintended learning outcome – which was not ascertained in this activity but is worthwhile exploring – is that of students' perception of the importance of class attendance. It can be argued that such a dual-purpose attendance system communicates the value of class attendance as more than an administrative grading exercise but rather as a continuous learning opportunity that cannot be replicated by simple studying.

References

Laurillard, D. 2012. *Teaching and a design science: Building pedagogical patterns for learning and technology.* London: Routledge.

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