

The Active Learning Platform a year after implementation: Lessons from the lake of hope

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This study investigated the uptake of the Echo360 Active Learning Platform (ALP) by academic staff at Griffith University. This research will inform future deployment prospects of this platform and seeks to discover the best ways to support staff in utilising its newer features to help students engage with their educational content. The study reports on the uptake one year after the implementation of the new features. It reports on data at two levels, firstly from the overall uptake of the new features in the tool and, more particularly, it reports on how a smaller number of staff have engaged with the tool over the last six months. Results suggest although the many new features in this tool have been welcomed by staff, the uptake is slower than had been predicted. Those who used the new features have reported student engagement with the tool in face to face classes and increased lecture attendance. However, some academics found the platform difficult to use and that it takes more time than expected to understand features. The paper reports reasons for this and provides some insights as to what can be done next to see a further increase in the level of engagement.

Keywords: Echo360ALP; active learning; higher education; implementation, polling

Introduction

For many years now, with the advent of more reliable technologies supporting the higher education (HE) sector in Australasia, and more particularly with the push towards providing more flexibility in how students access their learning resources, institutions have invested heavily in a range of online tools (Glasby, 2015) to augment the traditional learning management system (LMS). Tools such as lecture capture systems, ePortfolios, online assessment tools, and virtual classrooms, etc., as seen in Figure 1, that depicts the Griffith virtual learning environment (VLE). However, more recently, these technologies have started to introduce features designed to actively engage students in their learning. These new tools not only provide static or passive resources for those studying at a distance, in blended modes and in newer style physical learning spaces (Glasby, 2015), but now have more interactive features. If we take, for example, the lecture capture tool that Griffith University uses, Echo360 ALP, and look across the Australasian sector, we find that this one tool is used by over 31,000 academics and with half a million students using the lecture captures these academics provide (statistics provided by vendor).

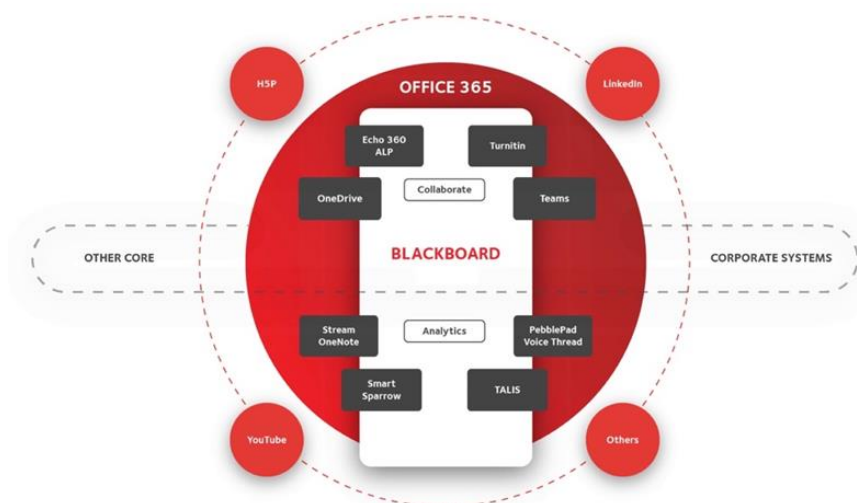


Figure 1. Griffith virtual learning environment (VLE)

Griffith, like many universities in Australasia, has used Echo360 lecture capture in face-to-face teaching for some time. Lecture capture enables students who are unable or unwilling to physically attend the lecture, to engage with the course lectures after the physical lecture has taken place. In 2016, when the previous version of Echo360 was coming to end-of-life, the University updated to the Echo360 Active Learning Platform (ALP). This newer version includes more interactive tools than its predecessor and allows students to engage in questions and polls, participate in question and answer (Q&A) discussions, flag course materials that need clarification, and take notes corresponding to presentation slides or videos. The platform also provides academic staff with the opportunity to review analytics data, providing valuable insights into the level of student engagement. However, the use of these tools, in the case of Griffith, is based on a conscious effort to engage students in more active, collaborative and authentic learning experiences. To that end, as the lecture tool that Griffith had used for some time started to develop these more active learning features, it was a natural decision to engage as much as possible in adopting the affordances of this new tool.

In 2016, a small pilot of Echo360 ALP was undertaken with seven courses involved as early adopters with the key success factors being previously reported (Duffy, James, Campbell, & Williams, 2017). After a break which involved analysing the data collected during the small pilot, a larger more inclusive pilot was developed using an early adopter project methodology. Expressions of Interest forms were sent out with twelve respondents from two academic groups. Two staff were from the Griffith Business School and 10 staff were from Griffith Health. However, of these 12 staff only six staff attended the training and used the platform. The formal training involved one session with the vendor as well as two other sessions conducted by the central teaching unit. The university Learning and Teaching Consultants (previously called educational designers and blended learning advisors) that reside in each of the four Academic Groups (Faculties) were also invited to each of the training sessions. A SharePoint site was set up for resources to be shared with the Learning and Teaching Consultants to help provide a level of consistency across the institution. One of the initial setbacks in the early adopter program was that the links within the Learning Management System, Blackboard, were not automatically populated and needed to be manually implemented. To support this, a very thorough set of instructions were posted on the project site, as well as a video on how to complete these steps manually.

From the initial training sessions there was some effort to provide resource creation and further training. At the time, two Griffith Faculty Sparks (short video presentations with supporting resources) were provided. For example, see <https://app.secure.griffith.edu.au/exlnt/search?q=echo360&o=most-recent&et=faculty-spark> as well as several blog posts and six generic training classes conducted (two per trimester) with two being supported by the vendor's Learning Technologist. Also provided was School-based training run by the central unit for the Griffith Health Academic Group (two sessions to 49 staff) and the Sciences Academic Group (two sessions to 17 staff). There was also a show and tell session run for the Griffith Business School, with 18 attending. During the training sessions, the first part of the training was conducted from a student perspective showing how the tools could be used in the classroom for students. This demonstrated how one could provide opportunities for increased engagement and active learning in class. The second half of the training sessions were hands-on with attendees adding in their links to the LMS, uploading activity slides, and looking at how they can structure their courses within the platform. Overall the training was considered successful based on positive evaluations.

Literature review

One commonly used higher education digital technology is lecture capture. Its purpose is to increase flexibility for students in terms of when and where they study. While there were concerns that using lecture capture would affect lecture attendance (Young, 2008) and student learning this does not appear to have eventuated. Toppin's (2011) research suggests that attendance at lectures was not negatively affected through using lecture capture, with students perceiving it to be a useful tool in helping them understand concepts taught. This is consistent with that of Chandra (2007), who concluded that reviewing videos of class lectures has a positive impact on student learning. A study into the use of Echo360 as a lecture capture platform (Mark, Vogel & Wong, 2010), concluded that students "instead of developing an intention to skip classes ... believe that Echo360 plays greater value in helping students to revise" (p.1732). However, research on this latest version of Echo360 lecture capture, called Echo360 ALP is quite limited. There is early evidence that Echo360 ALP engages students who use it (Campbell & Centre for Learning Futures, 2017), with Campbell and Blair (2018) suggesting that students engaged with various tools that were available and uptake in the course was good with 76% of students accessing and using the platform.

As this is a new technology, it is important to discuss adoption of new and emerging technologies. The rate of adoption of any new technology usually starts low, accelerates until about 50 percent of users have adopted and then decelerates as the new technology becomes more widespread and reaches everyone in the community (Butler

& Sellbom, 2002). Moser (2007) found the following were all factors instrumental in how technology was adopted; time, competence (support resources), course design, teaching/learning experience, reliability of the technology, and reflection. In adopting new educational technology and to address these issues, Abrahams (2010) suggests the focus should be on how to successfully adopt the technology for increasing or improving the ability to educate using the new technology. Moser (2007) suggests that a successful program for supporting educational technology adoption must encompass and foster a community involving faculty and support groups.

Methodology

Phase one of this project involved an analysis of institutional data associated with the overall uptake of the new features in the tool, while phase two involved survey data that was collected online through an anonymous survey which was placed in Qualtrics for the academics to complete. The survey took approximately ten minutes to complete and asked questions such as demographic questions, ease of use, how often using it, changing lecture preparation, as well as the advantages and disadvantages of using the platform.

While 53 staff began the survey, only 33 staff completed the survey. Some staff emailed and reported that as they had not been using Echo360 ALP, they couldn't finish or participate in the survey. From the 33 staff who completed the survey, only 22 had used it in the previous six months. Results are reported only from those participants active in the past six months. Data has also been gained and thus reported from the analytics available in the system.

Results and Discussion

Below the results have been broken into two sections, one showing university statistics and the other the results from the survey.

Phase one: Institutional data

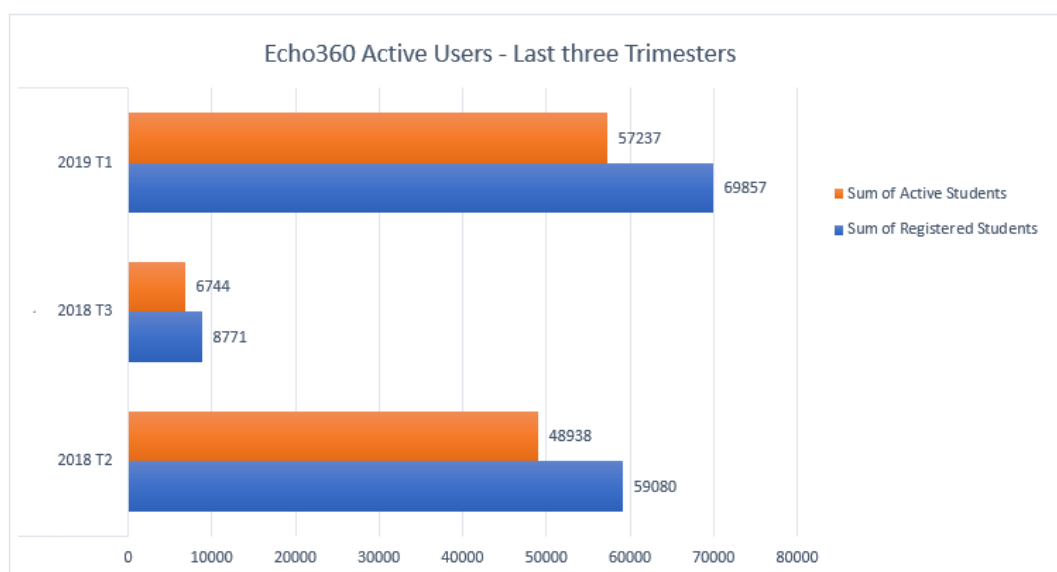


Figure 2. Active and registered students for the past three trimesters.

Since the implementation of Echo360 ALP in Trimester 2, 2018, usage has improved. This is evident in Figure 2 which shows increased usage since trimester 2, 2018. As Trimester 3 is over summer, only a small number of students' study which is why usage was lower at this time. Figure 3 reports the types of usage and the total of that usage as compared with the number of active students ($n=57,237$) which is lower than the number of registered students ($n=69,869$), this is any student who has a class that is using Echo360 ALP. This means that 82% of the registered students are active, which seems quite high. As expected, students most often used the slide deck view ($n=36,831$) and then also used the note taking facility with 21,339 note events counted. Polling was also used ($n=9,127$) to a good extent.

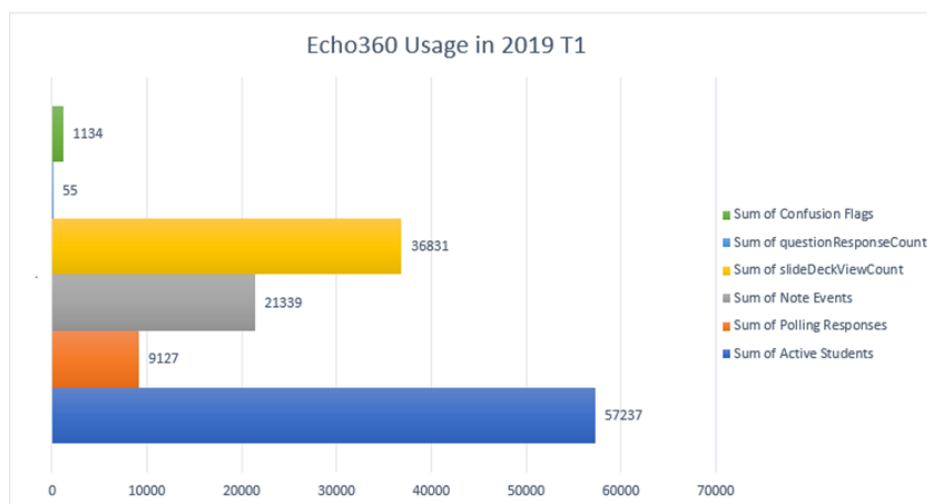


Figure 3. Types of usage across the university.

Phase two: Academic survey results

From the academic survey that was implemented, 22 respondents, who identified as Lecturers or Course Conveners, had used the active learning features in the last six months with a strong 82% of respondents either using it weekly or multiple times a week. Of these, 86% had found the platform easy to use. Of those not finding it easy to use indicated that it was difficult to locate the tool within the suite of options available to them within the LMS environment, and not due to the tool itself. Fifteen (68%) reported changing the way they presented their materials based on the new tools being available. When asked which features of the new tool-set they were using (they could choose multiple answers) to get students engaging in class, most it appeared were providing either multiple choice questions for their student (n=15), or short answer questions (n=12). Three (n=3) were using image quizzes and ordered lists (n=2) and numerical response questions (n=1).

When asked about how they use the tools in the system to engage their students, there was a 62% agreement that the tools helped them feel that the lecture itself was more interactive, with 28% not sure and 10% not agreeing with this. However, when asked if they felt their students were more involved in learning in the class the sentiment was not as strong with only 33% agreeing with this and 38% disagreeing, while the remaining 29% were not sure. Although this is not surprising given engagement does not necessarily equate to learning, at least without data, or evidence to suggest this is the case, it is difficult to make that call. It became clear in the responses that many of these lecturers experienced some (different forms of) technical difficulties that prevented a full engagement with the platform, with students not always having the right devices with them, to problems with the network, to not setting it up properly. It was seen that some of these problems could be remediated as they became more familiar with the product, while others they felt they had no control over. Despite this, 68% believed that they would use more features in the future. A feature that was seen to be valued by half the participants (n=11) was that of allowing students to provide opinions back to the teaching staff during class. Those who disagreed with this (n=6) had very limited exposure to the new tools set.

Staff were asked about their experiences with the platform with several staff commenting in the positive. One staff member commented “I was pleasantly surprised by the level of student engagement”, while another suggested “It engaged students far more than I expected and the more I use it, the more students coming into my classes are familiar with it. I am also growing in confidence and starting to use Q and A and a flipped classroom approach”. One advantage to using Echo360 ALP is that “students can access lecture[s] any time on [sic] their own pace”. One academic suggested it was a learning process as s/he “had to learn to identify the type of questions that were adaptable to the platform. One advantage that was commented on is that it makes a “difficult course easy and students can understand the content easily” which is possibly due to the active learning nature of Echo360 ALP. This is reinforced by another academic who stated, “the main advantage is student engagement and the ability to gauge the level of student understanding during class rather than after an assessment item”. Some of the barriers previously identified in the literature (Moser, 2007) were also evident with one academic reporting that it took “more time than expected,” while another one stated one “Disadvantage is extra time to prepare presentations in Echo from previous PowerPoint slides”.

Although student uptake is quite high, a staff member did comment on the lack of student uptake in a course by stating “Lack of student uptake; not knowing how to show the students how to use it” which suggests greater training for the students may be beneficial. More training may also be helpful to students in the course where the academic stated “I expect[ed] students to interact more” or perhaps they could change the way it is being used in that course slightly. Another problem was that there were “problems with connectivity of students using mobile phones or tablets, some features of PPT are not supported by Echo360”. While another staff member suggested while it was mostly positive “some students don’t have a laptop or phone and struggle to engage”. One staff member did report they weren’t sure how to use it due to “no appropriate training” and “not knowing how to show the students to use it”. The staff were asked if there was a need to change their lecture preparation when using the platform with 68% (n=15) stating yes, which suggests that most did change the way they created and undertook their lectures.

Further Research

This preliminary research shows that further research is required to fully understand the issues facing academic staff on the adoption of this platform. In the future we plan to conduct in-depth interviews with staff who are using the tool as well as surveying those who attended the training but are not currently using the platform. Interviews with university faculty-based Learning and Teaching Consultants would also be beneficial and work around university support in the Schools would be beneficial to increasing use across the university. Further resources could be made available and an investigation into how they are being used and how they could be improved would also be helpful to staff. Providing greater support to staff could be acted upon and then conducting a student survey around usage and engagement in the future may also move the research forward on motivators to academics using the platform.

Conclusion

While Echo360 is just one of the many tools that is used for active learning, it forms an important part of the entire VLE learning suite. Griffith University is committed to providing high quality education to students and has now developed an Active Learning Website for staff who are able to use it to increase their use of the suite of tools provided to help them engage with their students in on-campus and blended forms of delivery. Echo360 ALP forms part of this suite and has been shown to be under utilised to-date. Now that the central teaching support unit is aware of this, it will be able to make training sessions more accessible to staff. The next phase of this project will be to then see if this drives increased usage in the future and to what extent this will facilitate a greater level of student engagement.

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