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Date: 23/12/2015

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- The future of VLE's
- Gamification in education
- Assessment of learning in a digital age
- Flipped Classroom
- Mobile Learning

Mini Project: Conferencing **Author: Darren Bellenger**

This project summarises the main findings from Webb, E., Jones, A., Barker, P. and van Shaik, P. (2004) then critically evaluates the findings using experience in relation to CGI, an IT company that delivers “off the shelf” and bespoke e-learning along with 129 blended learning programs in different languages for its 74,000 workforce.

Webb et al. (2004, p.96) analyse research to prove the hypothesis that the use of dialogue within online learning communities leads to increased learning outcomes. It is of interest to note that the analysis indicates that students who do not choose to participate in dialogue, but just read (lurkers), also show increased learning outcomes. An unexpected finding was that many students actively helped other students and it was also seen that students included hyperlinks in dialogue which increased discussion.

Further research by Davies and Graff (2005, p.661) found that students with greater online interaction achieved higher grades but that this improvement was not significant. As outlined by Garrison and Cleveland-Innes (2005, p.140) dialogue should not be provided at the expense of teacher presence and effective design as this can negate the use of learning dialogue.

Within CGI, blended learning incorporating dialogue has gained greater company-wide interest since being introduced 18 months ago, although there has been no research into learning outcomes. The unexpected finding outlined above is also noted within CGI, a willingness to help other students irrespective of seniority has emerged. However, use of hyperlinking in dialogue is not evident although there is the capability to do so, therefore exploring this issue further may be required.

Webb et al. (2004, p.101) also noted technical VLE restrictions when delivering flexible dialogue. This is a current problem within CGI’s learning programs with dialogue being offered by linking to its business social communications platform. This allows employees to see all of their business and learning dialogue from one central point, although it could be argued that learners are more politically correct (from a company perspective) because of this, due to this dialogue being perceived to be closely monitored. As CGI is replacing its learning platform in 2017, further research into flexible dialogue would be of help due to the evidence that having dialogue as an integral component of a blended learning program points to improved learning outcomes.

Finally, Webb et al. (2004, p.100) argue that 500 participants is too large for effective dialogue. The author disagrees as CGI have seen global learning programs delivered to around 10,000 students resulting in interesting and varied dialogue. Further research into learner dialogue in learning programs with large student populations would be of interest to CGI given its large workforce.

In conclusion, the author agrees with the research findings outlined and notes their relevance to CGI. The next steps would be further review of the literature alongside research at CGI looking at whether blended learning incorporated dialogue results in increased learning outcomes. Exploring research would be prudent given that Webb et al. (2004) concentrated on full-time students in education, which is different to CGI whose staff are a completely different demographic.

Word count - 508

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Mini Project: The future of VLE's **Author: Darren Bellenger**

This project evaluates Scott Wilson's assertion that the VLE is built around a model of an institution rather than from the focus of the learner.

It is suggested by Jones (2013, p.205) who considers the learning infrastructure, that VLEs are generally built by non-academic staff. These staff may have some measure of IT technical ability, but operate with no clear requirements definition or strategic vision, and little design input from academia. Jones goes onto suggest that in such situations staff with little or no academic background will model what they know, the institution and its main processes.

As Dalziel (2013, p.231) notes in a historical look at VLEs, most institutional focus is given to content delivered by the VLE rather than the fundamental design of the VLE itself. In most cases the VLE, as noted by Ofsted (2009, p.4), is maintained by enthusiastic staff and learners. Salmon (2003, p.205) points out that institutions do not offer comprehensive training for staff. Salmon (2003, p.4) therefore suggests that, it would be almost expected that staff revert to the institutional influences they received when they were taught many years ago.

Having considered why some staff may revert to the institutional model for VLEs, influences from institutional issues will now be identified.

Ongoing VLE investment, such as that required to move from an institutional model to one of the learner, is hard to obtain given that there are many personalisation critics along with ambiguity over what personalisation entails, as outlined by Monthienvichienchai (2005, p.93). This is exacerbated by there being little development of systems to evaluate the impact of VLE's as noted in Ofsted (2009, p.5), thereby resulting in little evidence to help in obtaining investment. Mayes & de Freitas (2013, p.26) give another reason why VLEs are not built around the focus on the learner when they highlight a situation where an institution sets out to standardise the VLE. This is especially the case in large organisations or within the military where multiple VLEs may be constructed in a federated system.

Interestingly, Blackall (2005) disagrees with Wilson's vision of the future VLE and asks why we need a VLE anyway when the internet is offering new personalised ways of communicating. Brown (2010, p.2-8) concurs with Wilson's view on the historical institutional focus of VLE's but suggests evidence that VLE's will continue, with less innovation due to a declining market and that even a VLE with personalisation features may still be classed as institutional, as well as casting doubt on their long-term viability.

In summary, Wilson's view that historically the VLE is built around a model of an institution is one that can be seen in the way that VLEs have been implemented as discussed in this mini project. This is a view the author agrees with, whilst taking on board the position that Brown (2010) offers in that they may always be classed as institutional during their lifetime.

Word Count - 485

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Mini Project: Gamification in education **Author: Darren Bellenger**

This project will describe and analyse one gamification process used within CGI, namely that of using the QStream gamification platform within a blended learning program to support a Community of Practice (CoP) for CGI's distributed sales teams. CGI is an IT systems integration company and its learning department deliver e-learning and blended learning programs to 74,000 staff.

CGI created a blended learning program to improve sales skills and reinforce the key messages from its "Be-the-Best" initiative. As part of this initiative CGI also wanted to provide management insight into areas of strength and weakness for enrolled staff. CGI incorporated the QStream gamification platform which delivered regular short assessments to staff's mobile devices with scores aligned to 14 team leader boards as well as overall team and individual competitions over an 11 week period.

The post gamification review QStream (2014, p.13) noted increased proficiency (65% to 90%) with positive post program staff feedback. High engagement was achieved in all teams with the exception of the UK head office which showed poor take up in relation to the satellite teams.

De Freitas & Mayes (2004, p9) discuss cognitive theory and Piaget's assumption around intellectual activity, which aligns to the QStream approach of short regular activity tests which QStream promote as 'interval reinforcement'. QStream also use the term 'spaced education' which allows for the observation and experimentation as outlined by de Freitas & Mayes (2004, p15) with regards to Piaget's constructivist theory of knowledge. The sales CoP containing QStream also reflected de Freitas & Mayes (2004, p17) discussion on activity theory and gave staff greater social presence, an area also discussed by de Freitas & Mayes (2004, p9 - 10) when looking at the importance of the social perspective in learning.

De Freitas & Mayes (2004, p18-19) discuss Vygotsky's zone of proximal development (ZPD) and its influence by incorporating activities that simulate actual situations. This aligns with CGI QStream's short assessments, placing students in workplace scenarios. The CoP then allows for structured interaction and further expert guidance, two features influenced by ZPD as discussed by de Freitas & Mayes (2004, p19).

CGI's gamification also incorporates the desires outlined by Muntean (2011, p.326) including intrinsic and extrinsic motivation to drive engagement. Muntean (2011, p.328) does though outline effectively analysing engagement as a measure of gamification success. In this sense QStream (2014, p.6), whilst highlighting an engagement rate of 98% falls short of showing measurable engagement improvement given that mandated e-learning within CGI can command nearly 100% engagement in many circumstances. Further gamification research within CGI would therefore be advisable.

Domínguez, Saenz-de-Navarrete, De-Marcos, Fernández-Sanz, Pagés & Martínez-Herráiz (2013, p.386) note students involved in gamification-based learning can perform poorly in written assignments and participate less in the classroom. Whilst CGI do not use written assignment evaluations, note should be taken that potential issues with classroom participation could arise.

In summary this paper has analysed the use of QStream within CGI compared with published studies, with the limitation that no formal research has been undertaken at CGI.

Word Count - 500

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Mini Project: Assessment of learning in a digital age **Author: Darren Bellenger**

This project considers the ways in which technology can be used to effectively support assessment as outlined in JISC (2010) and JISC (2014) and how assessment within CGI is being enhanced with assessment technology. CGI is an IT systems integration company and its learning department deliver delivering e-learning and blended learning programs to its 74,000 staff.

Technologies such as e-submission, e-portfolios for reflective thinking and the electronic validation of written work (plagiarism software) have fundamentally changed university coursework since the author was last in a university setting over 26 years ago. This is a change reflected by Ahn (2004) when analysing the benefits of digital student work.

Alongside changes brought about by the internet described above, the JISC reports highlight the positive impact of effective electronic assessment within education. This work is taken further by Sutherland (2005, p.80) who looks at the use of e-portfolios for deeper reflective study and Salmon (2003, p.10) who analyses work on 'scaffolding' learners to provide them with various levels of support. This is best supported by the process of continual tutor feedback and mentoring to assist students who are struggling.

However, the use of electronic assessment within CGI is very different. Within CGI there is an onus on employees to continue their own continuous professional development (CPD) for career improvement. CGI does fund CPD in a number of ways, but does not assess it. However, CGI do assess employees on mandatory courses in areas such as Health and Safety and corporate business processes using electronic testing and certification (using the SCORM standard), saving administrator workload, a benefit highlighted in JISC (2010, p.8) when discussing computer-assisted assessment.

An area where e-portfolios could enhance assessment within the CGI workplace is as a component of graduate onboarding whereby graduates could upload their university e-portfolios and continue their reflection, allowing management to assess and offer personalised workplace opportunities.

There is currently no assessment of learning within CGI in senior management learning programmes due to resistance, particularly from managers anxious about the recording of their results. Both staff resistance and institutional cultural issues with external stakeholders as highlighted in JISC (2014, p16 - 17) – are found within CGI especially when delivering learning to senior staff. There is a perception that these staff should not undergo any type of electronic assessment unless it is contained within a private executive 360 degree competency assessment framework. This has also resulted in executive learning being delivered and administered by its own separate department.

In summary, CGI makes limited use of digital methods to assess learning, due to the main types of learning delivered within the business. However, as the JISC reports suggests, there are assessment processes that have relevance within CGI in the future. Recognising the continuing importance of new technologies in continually improving assessment within education and the workplace, it will be important for CGI to keep new technology approaches under review and continually challenge itself to provide improved assessment opportunities.

Word Count - 489

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Mini Project: Flipped Classroom **Author: Darren Bellenger**

This project considers the potential for the use of the flipped classroom approach within CGI worldwide for blended learning programs as put forward by Strayer (2012). CGI is an IT company delivering e-learning and 129 blended learning programs to its 74,000 staff in different languages.

The flipped classroom approach is not currently in use within CGI. However, with CGI's students being full-time IT staff up to retirement age, motivated to expand their knowledge within a fast moving IT world and wanting to attend shorter blended learning courses, consideration should be given to the potential benefits of flipped classrooms.

CGI's blended learning tends to be shorter when compared to those discussed by Strayer (2012). One example is a 5 day course with 2 days of classroom training sandwiched between 3 days of students working through paper-based materials and bespoke assessed e-learning modules. A positive of shorter blended learning is that the fragmentation highlighted by Strayer (2012, p.190) is unlikely to be an issue. Also the orientation adjustments and unpredictability encountered by Strayer (2012, p.190-191) would also be minimal. Another difference is that CGI's students are older than those within Strayer's (2012) study, therefore exploring further research with differing student demographics would be beneficial.

Concern that the flipped classroom approach could result in lower student achievement was addressed by research such as Findlay-Thompson & Mombourquette (2014, p.68) who note that its use does not negatively affect student results. Findlay-Thompson & Mombourquette (2014, p.67-69) did note some students preferred more traditional classroom approaches and that effort must be made to gain student buy-in with students being allowed to express any concerns they have.

In making a decision as to whether to recommend the flipped classroom approach within CGI there are a number of factors to be considered. CGI blended learning involves classroom sessions taking place in major office locations, therefore it can only deliver in 60% of its geographies, due to cost constraints. Once CGI introduce virtual classroom technology (planned for 2016) it could deliver to 100% of its geographies with the flipped classroom approach used before virtual classroom sessions.

One technical hurdle is that CGI's learning platform is not holistic in nature with learner dialogue only provided by linking to our business social communications platform. CGI is due to upgrade its learning platform to include learner dialog which will better suit blended learning.

With Strayer (2012, p.188) noting students have a willingness to work together collaboratively, it brings the possibility that this approach could improve the sense of community within CGI given that many work from home. Given Strayer (2012, p.180) found students preferred more innovation, if CGI introduced the approach it would be prudent to help our trainers introduce more collaborative and innovate classroom techniques.

In summary Strayer's views on flipped classrooms is relevant within a global organisation as discussed in this project. However, the characteristics of the organisation particularly in terms of size and geography need to be considered carefully.

Word count - 490

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Mini Project: Mobile Learning **Author: Darren Bellenger**

This project will explore the use of mobile learning (m-learning) within CGI along with the potential for expansion of its use. CGI is an IT integration company and deliver learning to its 74,000 staff.

CGI uses the Skillport learning platform offering a large library of commercial content (over 59,000 titles). This is augmented with bespoke in-house content, and blended learning programs delivered in different languages and geographies. The platform currently delivers content tailored to a learner's location, department and language preference, an approach closely matching situated learning as defined by Kukulska-Hulme & Traxler (2013, p.247).

Skillport is multi-tenanted and one of its planned upgrades, termed the 'Hyper-Personalised Learning Experience', uses learner analytics to provide personalised recommendations. This aims to overcome the 'choice-personalisation paradox' described by de Freitas (2005, p.14) that within an environment with a large content catalogue, there is a need for content filtering and personalisation so learners are not swamped by huge choice. This is already seen as an issue within CGI due its large learning catalogue.

The current platform offers a mobile app providing audio books and video-based learning content (a subset of its catalogue) viewable from an employee's smartphone. This Bring Your Own Device (BYOD) approach does not exhibit the tensions outlined by Kukulska-Hulme & Traxler (2013, p.252) as staff were already using m-learning and its take up has widespread management support. However, there are deficiencies in this BYOD mobile app in that it does not allow for situated or authentic learning as defined by Kukulska-Hulme & Traxler (2013, p.247,) nor the delivery of bespoke in-house learning. This though should be addressed within a new platform.

In 2016 CGI plan to provide a BYOD-based onboarding platform for new staff and it is envisaged that this will better communicate CGI's core values and beliefs and deliver personalised m-learning in the first year of their time at CGI.

The aim is to improve staff retention as CGI has found issues surrounding new staff not feeling part of a wider business community and having to work away from home on projects as being barriers to them pursuing a career with CGI. The platform will provide social communication and collaboration between new staff, their managers, mentors and company innovation evangelists. This will allow new staff to gain an improved social presence within the company that may result in improved learning, an area highlighted by Garrison (2011, p.22). If successful then the onboarding will also then be available to existing staff.

In summary it can be seen that CGI has a positive approach to m-learning as demonstrated by the current learning platform which offers effective m-learning and its plans for development. However, there have been no plans in place on any changes required to our learning design processes, noted as a key consideration by Kukulska-Hulme & Traxler (2013, p.253), which CGI should address. Also CGI could consider more ways of implementing workplace performance support as suggested by Woodill & Martel (2011, p.22) although with the size of CGI this is a major undertaking.

Word Count - 502

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