2022

A Review of the Impact of Authentic Assessment on the Student Experience & Engagement in an Online Regulatory Environment Module.

Amanda Dixon
TU Dublin, amanda.dixon@tudublin.ie

A Review of the Impact of Authentic Assessment on the Student Learning Experience and Engagement in an Online Regulatory Environment Module

Amanda Dixon
TU Dublin
amanda.dixon@tudublin.ie

Abstract

The Covid-19 pandemic triggered the move to online teaching, which prompted a redesign of the *Regulatory Environment* module in the *Sports Management and Coaching* programme, TU Dublin. The module redesign focused on replacing the traditional invigilated exam with authentic assessment. Research shows that authentic assessment can improve the student learning experience and engagement. Authentic assessment immersed the student in the learning experience and they became enthusiastic self-directed learners. It imposed a real life dimension to the regulatory environment module content, which is entirely theoretical in nature. The regulatory environment students participated in an online focus group. The research established that the authentic assessment had a positive impact on the student experience and their engagement in the online regulatory environment module. The findings demonstrate that implementing authentic assessment in theoretical modules that are regulatory in nature has many beneficial consequences for both student and lecturer. It enables understanding, knowledge retention, encourages student engagement, and helps with the challenges faced in the online learning environment. It creates a supportive and enjoyable learning experience for students once appropriate structures are in place. The participants acknowledged that an additional effect of completing authentic assessment tasks is that they developed transversal skills, which are a key employability factor. The outcome of the research will contribute to the body of knowledge on authentic assessment and inform the future design of curriculum and assessment in regulatory environment modules.

Keywords: online learning; student learning experience; engagement; traditional assessment; authentic assessment.

Introduction

As the Coronavirus pandemic gripped the world, it affected all avenues of life including the education sector. When education providers introduced emergency remote teaching worldwide because of the pandemic, it presented challenges for degree programme delivery but also presented opportunities. The pandemic hugely impacted students, their personal lives, work lives and college lives (Ahead, 2020; QQI, 2020).The move to online delivery and the recognition of how students were affected by the pandemic prompted the researcher to consider a redesign of module delivery and assessment with a view to improving the student experience and in turn student engagement. The module concerned is regulatory in nature and traditionally viewed by students as boring and having too much theory to remember (Jin, 2000). The introduction of emergency remote teaching provided opportunities to improve the student engagement experience through the introduction of authentic assessment in the *Regulatory Environment* module in the *Sports Management and Coaching* programme in TU Dublin. The implementation of authentic assessment allows for the application of theoretical components to real life situations (Mueller, 2005) and can motivate and encourage students to engage in their learning journey, which can be difficult in the online learning environment (Lombardi, 2008).

This paper starts with a literature review focusing on online learning, student learning experience and engagement, traditional assessment and authentic assessment. A description of the research methodology is followed by the analysis of the findings and the discussion of the results. Finally, the conclusions and recommendations for future research emphasise the impact authentic assessment has on the student learning experience and engagement.

Literature Review and Research Context

The Student Learning Experience and Online Learning

Online learning is the use of the internet, in conjunction with applicable software and technologies, to manage, deliver and develop material for education programmes (Fry, 2001). The use of online learning in universities, pre-pandemic, was increasing albeit at a slower rate (Larmuseau et al., 2019). The emergency remote teaching period during the pandemic forced programme delivery into the online learning realm (Adedoyin & Soykan, 2020).

One of the key benefits of online learning to students is its flexible nature. Students can engage with the programme at a time and place that suits their personal lives. There is no requirement to commute to campus for a specific time and course content is accessible 24 hours a day, seven days a week (Thomson, 2010). It is a more cost effective way to deliver programmes in comparison to the traditional face-to-face mode (Han & Johnson, 2012). From a student perspective, online learning is self-driven, so the student must be motivated and disciplined to succeed. The introduction of authentic assessment supported by assessment prompts and structure can prevent students from being demotivated (Bawa, 2016).

There are two types of online learning, synchronous and asynchronous delivery. Synchronous delivery involves real time delivery of lectures by lecturers and participation of students. It eliminates the feeling of isolation some students may experience with asynchronous delivery. Asynchronous delivery offers flexibility to students who cannot be online at the time of a scheduled lecture and can access course content whenever suits them (Hrastinski, 2008). However, best practice endorses the recording of the synchronous lectures and making them available to students via the online learning platform so they are accessible in the future (Acosta-Tello, 2015).

There were timetabled synchronous lectures for the *Sports Management and Coaching Regulatory Environment* module. Students could source recorded lectures, lecture notes and pertinent newspaper articles for each topic on the module Moodle (learning management system) page.

It is important when designing online courses to include multiple stimuli that encourage students to engage in the learning process (Robinson & Hullinger, 2008). Research shows that interactive online experiences create a more valuable and enjoyable educational experience for students (Muilenburg & Berge, 2005).

The Student Learning Experience and Engagement

There are various definitions of student engagement. Astin (1999, p. 518) described student engagement as "the amount of physical and psychological energy that the student devotes to the academic experience". This definition is limited to the role of the student in the process. However, other researchers identify that the educational institution also plays a role in student engagement through the allocation of resources including staff and technological solutions (Exeter et al., 2010).

There are links between the student experience and student engagement. The literature acknowledges that engagement is about the "quality of effort and involvement in productive learning experiences" (Kuh, 2009). A number of factors can contribute to a positive learning experience for students. Productive learning activities with a real world dimension that have distinct links between the theory and practice are highly valued by students. Meaningful activities that are interactive and engaging that contribute to learning and employability are seen as important. The presence of these positive learning experiences promote student engagement (Armellini et al., 2021).

The online learning environment poses challenges to the student learning experience and for student engagement. It is difficult to establish the level of interest of students have in the educational process and generally engagement and participation is problematic (Rajabaleen & Santally, 2021). Traditionally, the student's physical attendance at lectures established the level of engagement. As mentioned earlier, in the online learning environment students have the opportunity to attend a live lecture or participate asynchronously, reviewing the lecture recording. Ireland's National Survey of Student Engagement (Student Survey, 2021, p. 10) recently defined engagement as the "extent to which students actively avail of opportunities to involve themselves in 'educationally beneficial' activities and the extent to which institutions enable, facilitate, and encourage such involvement". Researchers maintain that the completion and submission of a number of assignments by students can be used to measure student engagement in an online course (Lauría et al., 2012).

Engagement is at the core of student success particularly online when students may experience isolation (Dixson, 2015). Swan *et al.* (2000) found that students were satisfied with their online course when there were recurring quality interactions with their lecturer and peers, and a transparent process. Nafukho (2007) concurs with this view, highlighting that it is important to have "interactive sessions and meaningful assessments focused on practice" in the online environment.

Traditional Assessment

Prior to the pandemic, the assessment of the *Regulatory Environment* module in the *Sports Management and Coaching* programme consisted of a 30% continuous assessment element and an end-of-semester invigilated examination worth 70% of the module marks. The invigilated examination was a closed book exercise to assess the student's knowledge and to ensure they met the learning outcomes of the module (Suskie, 2018). Whilst invigilated

examinations can be stressful for students, they are a secure and honest way to assess students and prepare them for future examinations in their education journey (Kolomuc, 2017; Bengtsson, 2019).

However, there are many limitations of invigilated exams. They are often an exercise in rote learning where students learn off copious amounts of material only to be able to regurgitate it at exam time (Sukie, 2018). Little knowledge or transversal skills such as critical thinking and communication skills are gained during this process (Palmer, 2004). This is the predominant method used to assess students despite the availability of other methods, which would provide students with a more authentic learning process (Nordmann et al., 2020). The real life application of the theory through authentic assessment means the students not only understand the material but also retain the knowledge gained, as opposed to the rote learning system that applies to the traditional invigilated examination (Rennert-Ariev, 2005).

Authentic Assessment

Authentic assessment enables the application of theoretical components to real life situations. Research defines authentic assessment as a "direct measures of students' acquired knowledge and skills through formal education to perform authentic tasks" (Mueller, 2005). Introducing authentic assessment benefits the student and the lecturer (Sacks, 1968, Fox et al., 2017). One of the key advantages of authentic assessment is that it immerses the student in the learning experience and they become self- directed learners. By participating in authentic assessment, students are motivated to become producers of content as opposed to receivers of content (Swaffield, 2011). It also imposes a real life dimension to course topics, which is particularly important in theoretical modules that have no practical element (Meuller, 2005). Authentic assessment is a very useful method of adding context to legal regulatory environment theory (Kift, 2004).

Authentic assessment has been used encourage and inspire students to actively participate in the learning process, which in turn broadens and deepens their knowledge of the subject matter (Bloomer, 1997). Active students enthusiastically participate in the learning process, which creates a positive experience for the lecturer (Fox et al., 2017). There are numerous benefits to implementing authentic assessment; however, there are many arguments against its implementation. There may be opposition from students because they are venturing into the unknown (Vu & Dall'Alba, 2014). The transparency of the process should counteract this opposition (Swan et al., 2000).

The *Sports Management Regulatory Environment* module was very structured as it was essential to success (Jacobs, 2013). Students got a module roadmap, which had a week-by-week outline of what was happening including the topic and the title of the assessment taking place. Each authentic assessment included a set of instructions, rubric and a template, if applicable, for submission (Ingham & Boyle, 2006). The real world nature of the assessment can be a challenge for students where they may feel that they do not possess relevant real word experience (Keeling et al., 2013). Ongoing national lockdown at the time of this module presented complications for students. All theoretical content presented to students included a "real world" angle with examples of the theory in practice discussed during the lectures for every topic (Brown & Green, 2015).

While the lecturers' experience with a module that includes authentic assessment is a positive one, implementing it can be very resource-intensive (Hart et al., 2011). This is particularly true when there are large groups of students. The use of comprehensive individualised authentic assessment could be limited due to the increased workload (Fox et al., 2017). Nonetheless, there are authentic assessment opportunities available for large groups such as posters, research-based word clouds and authentic assessment templates (Chermak, 2015).

The *Sports Management and Coaching Regulatory Environment* module concerned had more than 60 students enrolled so some of these authentic assessment opportunities were used including the development of a poster on the extent of 'Sponsorship in Sport', 'Corruption Buddy Project' word cloud presentation and a real life audit of 'General Data Protection Compliance' in a sports club. A summary of the authentic assessment tasks for the regulatory environment module is shown in Table 1.

Critical Elements of Authentic Assessment

There are a number of critical elements of authentic assessment identified in the literature. Firstly the students must find the authentic assessment activity challenging. They must be able to apply the skills they acquired to the real world activity (Ashford-Rowe et al., 2014). The ability to conduct legal research is a learning outcome of the module. Students find this challenging as it is a unique and completely new skill to them (Valentine, 2009). The majority of the authentic assessment tasks in the regulatory environment module had an embedded requirement to conduct legal research. Specific examples of these activities include the 'Employment in Sport' Case Study and the 'Negligence in Sport' Case Study.

Secondly, outcomes from authentic assessment should be in the form of a performance or a product. Students should be capable of applying their skills and knowledge to the authentic assessment with a view to creating an academic artefact (Archbald & Newmann, 1998). During their engagement with authentic assessment, students of the regulatory environment module created and presented all of their academic artefacts including a Sports Sponsorship Poster on an existing sports club and a Sports Agent Biography on a real life Sports Agent. In each of these activities, the student had to apply the theoretical components of the topics to their artefacts.

Regulatory Environment Module Topics	Authentic Assessment Task
Commercialisation of Sport	Create a poster, using the template as a guide, outlining the extent of in a chosen sports team or governing body.
Sport and Intellectual Property	Intellectual Property in Action Audit – watch a televised sports event and identify all the categories of Intellectual Property.
Corruption	Corruption Collaborative Buddy/Group Project – research an incident of corruption in sport.
Law of Agency	Sports Agent Biography – research a sports agent and create a bio in the template provided.
Data Protection in Sport	GDPR compliance in your club – how does your club communicate with members and comply with GDPR. Complete the template.
Employment Law	Employment in Sport Case Study – research a current sports related employment case.
Negligence	Negligence in Sport Case Study – research an example of a sports negligence case.
Anti-Doping	Anti-Doping Rule Violation (ADRV) in Practice Presentation – research an example of an ADRV identifying rules broken and the sanctions applied by the World Anti-Doping Agency.

Table 1 Regulatory Environment Authentic Assessment Tasks Topic-by-Topic

Thirdly, the authentic assessment design should ensure that there is a knowledge transfer. It is important that the authentic assessment design consider the applicability of the knowledge gained to the future workplace of graduates (Ashford-Rowe & Brown, 2014). Two examples of regulatory environment activities that exhibit this are the 'Anti-Doping Rule Violation in Practice Presentation' and 'General Data Protection Regulation (GDPR) Compliance in Your Club' task.

In the 'Anti-Doping Rule Violation in Practice Presentation', students were asked to identify how the anti-doping rule violations are applied under the World Anti-Doping Agency Code. They researched the case process, the rules broken and the sanctions applied and presented them in a template.

Compliance with GDPR is of increasing importance given the fines for breach levied by the Data Protection Commissioner (Data Protection, 2022). The majority of the *Sports Management and Coaching* students are members or coach in a sports club. This activity requested the students conduct an audit of their sports club to identify how the club were complying with GDPR whilst communicating with their members and coaches. To confirm compliance, students were required to review the GDPR rules and present a technological communication solution used by the club that was GDPR compliant.

Fourthly, feedback is an essential element of authentic assessment. The implementation of feedback on authentic assessment activities allows students identify areas of improvement and therefore is key to student success (Ashford-Rowe, 2014). Opportunities for feedback should be included in the assessment design so students not only identify areas of improvement but also understand the significance of the theory in real life contexts (Kendle & Northcote, 2000; Newmann & Wehlage, 1993).

The Moodle Gradebook facilitated digital formative feedback on each assigned authentic activity before the completion of the next task to give students the opportunity to improve their academic performance. Real-time informal verbal feedback and discussions took place during the module tutorials when students presented their activities.

Finally, the capacity to collaborate is key to a successful career (Bedwell et al., 2012). Authentic assessment that includes collaboration allows students to build team-working

skills. The 'Corruption Buddy Project' in the regulatory environment module required students work together in groups to identify and document an incident of corruption in sport and share it with the class via a presentation. The literature highlights that collaborative authentic assessment allows students contribute to peer-to-peer learning (Lebow & Wagner, 1994).

Wiggins (1998) concurs with these critical elements by emphasising that authentic assessment must be realistic, require judgement and innovation, and necessitates that the student does the subject. Authentic assessment must intimate real world contexts and include feedback with a view to improving student performance. These characteristics of authentic assessment lead to a more engaged student (Meyers & Nulty, 2009).

Student Online Learning Experience, Engagement and Authentic Assessment

Assessment hugely influences the way students approach their learning journey. As Boud comments, "Assessment is the most significant prompt for learning" (1995). It defines what the student learns and the way they learn (Holmes, 2017). Students who are actively engaged in the learning process are "deep learners" (Exeter et al., 2010). Assessment together with a supportive learning environment assists with this deep learning experience (Biggs & Tang, 2011).

Researchers state that if the goal is to change the student's engagement in the learning process then the method of assessment must change (Brown et al., 1997). The emphasis on engaged deep learning implies that a change is required from the conventional methods of assessments discussed earlier to authentic assessment (Koh et al., 2012). The literature confirms the definitive link between engaged students and authentic assessment (Sacks, 1968; Hart et al., 2017).

Effective strategies are required to engage students in online educational programmes and to provide interactive learning experiences (Chen et al.*,* 2010). These interactive learning experiences include online live lectures, online student content interactions, and student exchanges of information through assigned activities (Abrami et al.*,* 2011; Chen, 2007).

The redesigned *Sports Management and Coaching Regulatory Environment* module implemented these effective strategies by synchronously delivering content, making content including recordings available continously, assigning online tracked reading to students using the completion tracking function in Moodle, and finally implementing authentic assessment. Most importantly, module tutorial sessions, which involve smaller groups of students, were a communication vehicle for those students. The dissemination of the students' research took place in the tutorial sessions. It gave them an opportunity to highlight the knowledge gained and their problem-solving skills through presentations and discussions. Each student received informal real-time feedback during the tutorial sessions.

Methodology

A one-hour real time online focus group, on Microsoft Teams, took place with seven students from a group of 66 who completed the *Sports Management Regulatory Environment* module assessments through purposive sampling (Morgan, 1988). Students volunteered to take part. There were 48 males and 18 females enrolled in the *Regulatory Environment* module. Five males and two females participated in the focus group. Focus groups generally consist of six to ten participants and have the ability to gather "rich details of complex experiences and the reasoning behind an individual's actions, beliefs, perceptions and attitudes" (Carey, 1995). Focus groups are widely accepted as a fast, economical and effective method of obtaining data from multiple participants simultaneously (Kreuger & Casey, 2000). They give the participants an opportunity to elaborate on their personal viewpoints and also agree with or

dispute the views of other participants. However, researchers must be cognisant that 'group think' can occur. The researcher used flexible questioning and probing follow-up questions during the focus group session to deal with group think (Powell & Single, 1996). The researcher sought the personal viewpoints of the focus group participants on their completion of the authentic assessment in the *Regulatory Environment* module (Morgan, 1988).

Numerous analysis techniques are applicable to analyse the qualitative data gathered from focus groups including thematic collation technique (Garza, 2011) and thematic analysis (Braun & Clarke, 2006). Thematic analysis is a well-established technique for identifying, analysing and interpreting patterns in qualitative data. This process of analysis can generate the rich data discussed earlier (Braun & Clarke, 2006) and therefore was chosen to analyse the data. The analysis process consisted of three linked processes, data reduction, data display and drawing conclusions. This process also involved identifying relationships between the primary data and the secondary data from the literature (Miles & Huberman, 1994). The recording of the focus group session supported the data analysis process.

The analysis of the focus group data identified six key themes relating to the implementation of authentic assessment. These key themes are shown in Figure.
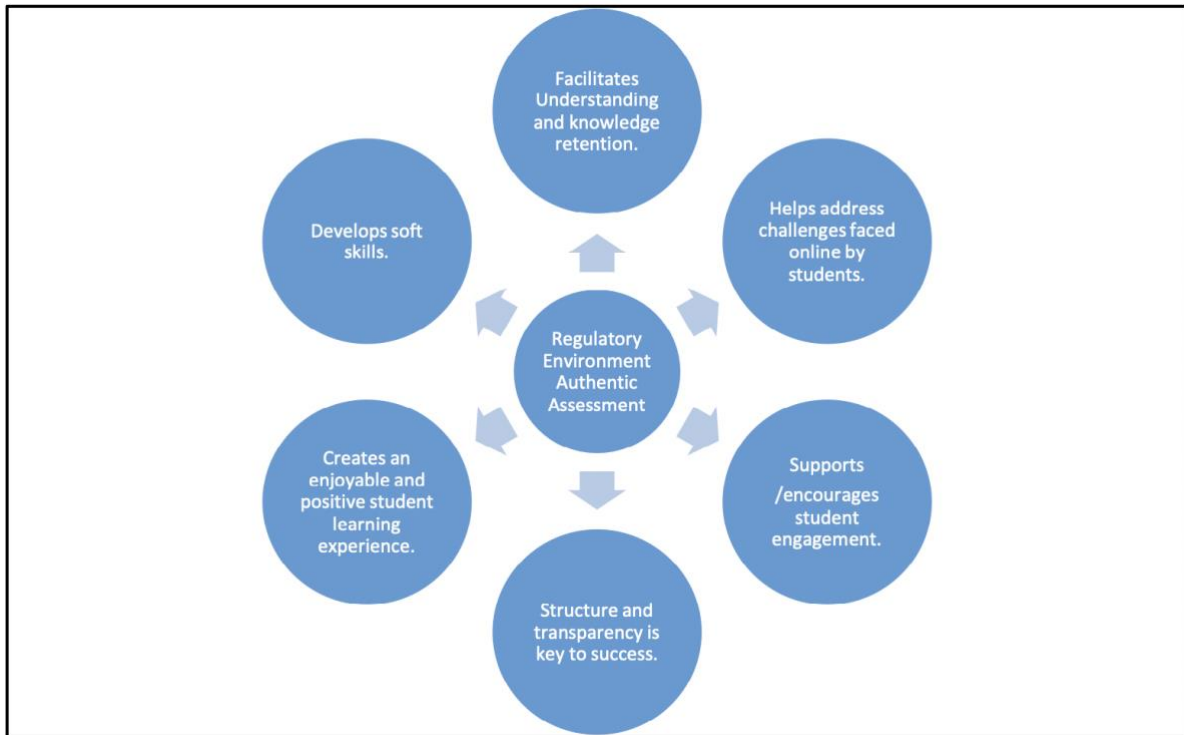
Figure 1 Regulatory Environment Authentic Assessment Thematic Map

Findings

The aim of the research was to identify the impact authentic assessment had on student engagement and the student experience in a regulatory environment module in the online learning environment.

When asked to discuss the impact the real life application of the theory in the lectures and assessments, the focus group participants specified that the real life application of the theory in the assessments and lectures facilitated their understanding of the regulatory environment module content and helped with knowledge retention.

In response to the question about challenges in the online learning environment, participants identified motivation as the main challenge they faced. All participants discussed the difficulties with motivation. It was "hard to get motivated online" and "concentration levels

dropped.... it was hard to engage". The participants mentioned a lack of interaction in the online environment was demotivating.

A probing question followed to identify if their participation in authentic assessment addressed the motivation issue. The implementation of authentic assessment and its real-world application addressed this challenge for the participants. The authentic assessment made the module "as interactive as possible" and helped maintain motivation levels. The participants noted it was an "enjoyable way to learn" stating they understood the module and "know a lot more after the course".

All participants articulated that the use of authentic assessment meant they were "100%" engaged in the module when questioned about the effect it had on their engagement. They were "always checking in" on the module Moodle page and "did not want to "skip class". They were "interested in learning". The opportunity to display their research findings in the tutorials was a positive experience and encouraged them to keep engaged.

A desk review of the regulatory environment authentic assessment submission rates supports these focus group findings, with high submission rates from each topic activity ranging from 72% to 92% percent (Figure 2). As it was a requirement that students must present their research in the module tutorials, these submission rates align with student attendance figures.

The structural supports in the module, included feedback, rubrics, templates and assessment specific instructions. The feedback per activity and module roadmap maintained a transparent learning environment. The researcher asked students for opinions on how beneficial these structural supports were. They students advised they used the feedback on each activity to students improve their academic performance in subsequent activities.
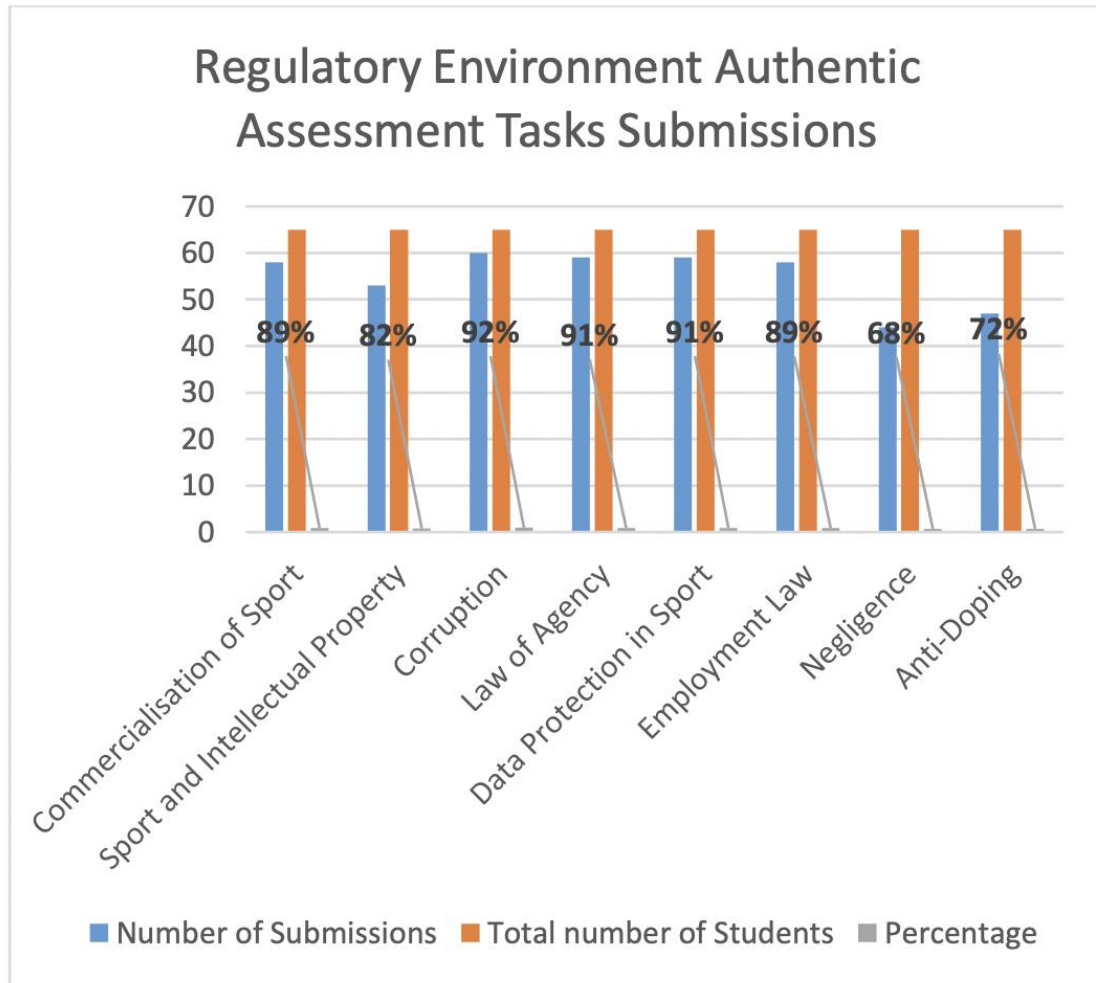
Figure 2 Regulatory Environment Authentic Assessment Task Submissions

Participants stated these structural supports were very beneficial as "you knew what to focus on" and "what was required" from the authentic assessment task. One participant suggested that the elimination of these structural supports, with the exception of the rubrics, as the semester progresses would encourage student independence.

When questioned about authentic assessment and the development of transversal skills, students disclosed that their involvement in the regulatory environment module developed and improved their transversal skills (Figure 3).
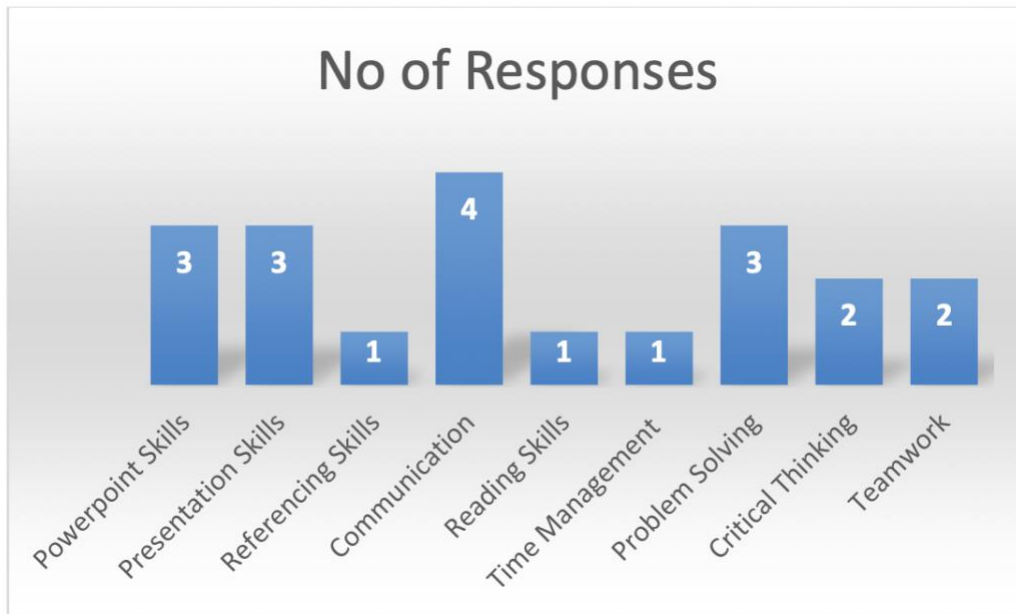
Figure 3 Regulatory Environment Module Transversal Skill Development

They identified communication as the top skill developed through authentic assessment. Use of PowerPoint, presentation skills, and problem-solving skills were also developed. Two participants highlighted they developed team working and critical thinking skills. Other skills developed on an individual basis were referencing, reading, time management, and teamwork. The physical creation of the authentic assessment tasks submissions in PowerPoint improved the PowerPoint skills for three participants, which in turn "benefitted other module assessments".

Finally, an enquiry took place on the impact authentic assessment had on the student learning experience. The real-world application of theory and assessment resulted in interactive lectures and tutorials in the *Regulatory Environment* module. The participants highlighted their positive experiences with the module. It was an "enjoyable way to learn" and "loved going to class". They found it helped "generate a better understanding" and it had a "good impact because we were looking at what was happening" in real life.

Overall, the students focused on how the inclusion of the authentic assessment improved their student learning experience and engagement. The development of transversal skills was a by-product. However, Higgins (2021) emphasises how the inclusion of authentic assessment in assessment design can create work-ready graduates, which is important for a successful future career.

Discussion

This paper researched how the implementation of authentic assessment affected the student learning experience and engagement in a regulatory environment module in the online learning environment. Due to the Covid-19 pandemic, all education provision moved to online in 2020 (Adedoyin & Soykan, 2020). The online learning environment is quite different to traditional face-to-face learning and presents its own unique set of challenges. Online learning is self- directed so motivation is an important factor in academic performance (Bawa, 2016). The consensus of the focus group was that the use of authentic assessment in the regulatory environment module helped address the "lack of motivation" challenge they faced.

The issue of student engagement in education is widely researched and with the increased use of technology, the definition of student engagement is evolving (Astin, 1999; Rajabaleen & Santally, 2021). Literature suggests that the use of authentic assessment in face-to-face settings promotes student engagement in education (Sacks 1968; Harte et al., 2017). The findings of this study concur with the literature, and demonstrate that the use of authentic assessment in an online learning environment encouraged students to engage with the module concerned.

The structural supports and transparency of the process helped with the isolation and demotivation that some students can experience in the online learning environment (Bawa,

2016; Dixson, 2015). The use of rubrics, instructions templates and the module roadmap helped students comprehend what was required of each specific task and create a level of confidence that allowed them complete the authentic assessment task to the best of their ability.

The feedback on each authentic assessment task was an essential component for the participants and was key to their effective performance in the module (Newmann & Wehlage, 1993; Kendal & Northcote, 2000; Rowe, 2014). Accordingly, students confirmed that structure and transparency were key to the engagement and successful participation in the module.

The use of authentic assessment in the regulatory environment module created interactive learning experiences for the participants (Chen et al., 2010) and as a consequence, they were enthusiastically invested in the module (Fox et al., 2017). The findings highlight the implementation of authentic assessment in the *Regulatory Environment* module created an enjoyable and positive learning experience for participants.

An outcome of the module redesign not considered was the development of transversal skills because of the completion of the authentic assessment tasks. Transversal skills are a key factor for the future employability of graduates. Industry recognise communication and problem-solving skills are vital skills for graduates and key to a successful career (Higgins, 2021; Sharma, 2018).

Overall, the participants agreed that the implementation of authentic assessment encouraged their active participation in the online regulatory environment module and created an enjoyable learning experience. However, there are some limitations to the research. The fact

that only one focus group took place with a small number of participants is a limitation.

Further research should consider a much larger sample.

Conclusion

The education landscape is changing at a rapid pace, especially since the start of the Covid-19 pandemic, and the increased use of online learning will become a major part of that landscape. The Minister for Further and Higher Education, Research, Innovation and Science in Ireland, Simon Harris, launched a research project to identify the *Next Steps for Teaching and Learning: Moving Forward Together* for the higher education sector (National Forum, 2021). The aim of this Higher Education Authority research project was to outline the lessons learned regarding teaching, learning, assessment and curriculum design during the online emergency remote teaching period.

From an assessment perspective, this study demonstrates that including authentic assessment in the design of the curriculum will create interactive, enjoyable experiences for students and lecturers and encourage student engagement online. The inclusion of authentic assessment in curriculum design will help with the difficulty of keeping students motivated and invested in their education journey. There can be an increase in workload for the academic; support and training at an institutional and national level can encourage academics to offer authentic assessment opportunities to students (Boud, Cohen, & Sampson, 2001; Brown & Glasner, 1999; Orpwood, 2001). The benefits for the students of using authentic assessment outweigh any disadvantages. The long-term effect of the completion of authentic assessment tasks on students is that they develop key transversal skills, which are crucial to securing employment on graduation.

Additional research is required into more specific regulatory environment authentic assessment tasks such as Moot Court, the development of transversal skills and into the

effect, authentic assessment has on academic performance. This research focused on a sports management and coaching programme, so further research is required into the impact of authentic assessment on other academic programmes or disciplines.

Consideration of the critical elements of authentic assessment identified by Ashford-Rowe *et al.* (2014) whilst designing authentic assessments is important. From the viewpoint of the student, structure and feedback are an essential part of the process.

The outcomes of this research will contribute to the body of knowledge on authentic assessment and inform the future design of curriculum and assessment in regulatory environment modules.

References

Abrami, P.C., Bernard, R.M., Bures, E.M., Borokhovski, E. & Tamim, R.M. (2011). Interaction in distance education and online learning: using evidence and theory to improve practice. *Journal of Computing in Higher Education*, *23*(2-3), 82- 103.

Acosta-Tello, E. (2015). Enhancing the Online Class: Effective Use of Synchronous Interactive Online Instruction. *Journal of Instructional Pedagogies*, *17*.

Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive learning environments*, 1-13.

AHEAD (2020). *Learning from Home During COVID-19: A Survey of Irish FET and HE Students with Disabilities*. Association for Higher Education Access & Disability.

Archbald, D. & Newmannn, F.M. (1998). *Beyond standardized tests: Assessing authentic achievement in the secondary school.* Reston, VA: National Association of Secondary Principals.

Armellini, A., Teixeira Antunes, V. & Howe, R. (2021). Student Perspectives on Learning Experiences in a Higher Education Active Blended Learning Context. *TechTrends 65*, 433–443.

Ashford-Rowe, K., Herrington, J. & Brown, C. (2014). Establishing the critical elements that determine authentic assessment. *Assessment & Evaluation in Higher Education,* 39(2), 205-222.

Astin, A.W. (1999). Student Involvement: A Developmental Theory for Higher Education. *Journal of College Student Development 40*(5),518–529.

Bawa, P. (2016). Retention in online courses: Exploring issues and solutions — A literature review. *Sage Open*, *6*(1), 2158244015621777.

Bedwell, K, Wildman, J, Diaz Granados, D. Salazar, M., Kramer, W., & Salas, E. (2012). Collaboration at work: An integrative multilevel conceptualization, *Human Resource Management Review*, *22*(2), 128-145.

Bengtsson, L. (2019). Take-home exams in higher education: A systematic review. *Education Sciences*, *9*(4), 267-283.

Biggs, J. & Tang, C. (2011). *Teaching for Quality Learning at University*. Maidenhead. Open University Press.

Bloomer, M. (1997). *Curriculum making in post-16 education: The social conditions of studentship*. Routledge.

Boud, D. (1995). *Assessment and learning: contradictory or complementary?* In P.T. Knight (Ed.), *Assessment for learning in higher education*. Kogan Page.

Boud, D., Cohen, R., & Sampson, J. (Eds.). (2001). *Peer learning in higher education: Learning from and with each other*. Kogan Page.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Brown, S., & Glasner, A. (Eds.) (1999). *Assessment matters in higher education: Choosing and using diverse approaches.* Society for Research into Higher Education & Open University Press.

Brown, A. H., & Green, T. D. (2015). *The essentials of instructional design: Connecting fundamental principles with process and practice*. Routledge.

Callender, C., Temple, P., Grove, L., & Kersh, N. (2014). *Managing the student experience in a shifting higher education landscape*. Higher Education Academy.

Carey, M.A. (1995). Comment: Concerns in the Analysis of Focus Group Data. *Qualitative Health Research*, *5*(4), 487-495.

Chen, S. (2007). Instructional design strategies for intensive online courses: an objectivist-constructivist blended approach. *Journal of Interactive Online Learning, 6*(1), 72-86.

Chen, P.S.D., Lambert, A.D. & Guidry, K.R. (2010). Engaging online learners: the impact of Web-based learning technology on college student engagement, *Computers and Education*, 54(4), 1222-1232.

Chermak, J. (2015). Authentic assessment of student learning in large classrooms: Oxymoron or opportunity? *Geological Society of America Annual Meeting*, Baltimore.

Data Protection. (2022). *Data Protection: The Basics,* https://www.dataprotection.ie/en/organisations/data-protection-basics.

Dixson, M. D. (2015). Measuring student engagement in the online course: The Online Student Engagement scale (OSE). *Online Learning*, *19*(4).

Exeter, D.J., Ameratunga, S., Ratima, M., Morton, S., Dickson, M., Hsu, D., & Jackson, R. (2010). Student engagement in very large classes: the teachers' perspective. *Studies in Higher Education, 35*(7), 761–75.

Fox, J., Murphy, V., Freeman, S., Hughes, N. (2017). "Keeping It Real": A Review of the Benefits, Challenges and Steps Towards Implementing Authentic Assessment. *The All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J). 9*(3). https://ojs.aishe.org/index.php/aishe-j/article/view/280

Fry, K. (2001). E-learning markets and providers: Some issues and prospects. *Education+ Training*, *43*(4/5), 233–239.

Garza, G. (2011). Thematic collation: An illustrative analysis of the experience of regret. *Qualitative Research in Psychology*, *8*(1), 40–65.

Han, H. & Johnson, S.D. (2012). Relationship between students' emotional intelligence, social bond, and interactions in online learning, *Journal of Educational Technology and Society*, *15*(1), 78-89.

Hart, C., Hammer, S., Collins, P. & Chardon, T. (2011). The real deal: Using authentic assessment to promote student engagement in the first and second years of a regional law programme, *Legal Education Review*, *21*(1-2), 97-121.

Higgins, F. (2021). Authentic Assessments: Preparing Undergraduate Computing Students for a New Future of Remote Internships, *Irish Journal of Academic Practice*, *9*(2), Article 6.

Holmes, N. (2017). Engaging with assessment: increasing student engagement through continuous assessment. *Active Learning in Higher Education, 19* (1), 23-34.

Hrastinski, S. (2008). Asynchronous and Synchronous E-Learning. *Educause quarterly*, *31*(4), 51-55.

Ingham, J. & Boyle, R. (2006). Generation X in Law School: How These Law Students Are Different for Those Who Teach Them, *Journal of Legal Education, 281*.

Jacobs, P. (2013). The challenges of online courses for the instructor. *Research In Higher Education Journal, 21*,1-18.

Jin, Z. (2000). The learning experience of students in Middlesex University Business School (MUBS): Why do they enjoy some modules/lectures and dislike others. *International Journal of Management Education*, *1*(1), 22-36.

Keeling, S.M., Woodlee, K.M. & Maher, M.A. (2013). Assessment is not a spectator sport: Experiencing authentic assessment in the classroom. *Assessment Update*, *25*(5), 12-13.

Kendle, A. & Northcote, M. (2000). The struggle for balance in the use of quantitative and qualitative online assessment tasks. *Proceedings of the 17th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education.* Coffs Harbour: ASCILITE.

Kift, S. (2004). Organising First Year Engagement around Learning: Formal and Informal Curriculum Intervention, *Paper presented at the Inaugural Pacific Rim First Year in Higher Education Conference*, Melbourne.

Koh, K. H., Tan, C. & Ng, P.T. (2012). Creating thinking schools through authentic assessment: the case in Singapore. *Educational Assessment Evaluation and Accreditation, 24*, 135-149.

Kolomuc, A. (2017). Subject-specific science teachers' views of alternative assessment, *Asia-Pacific Forum on Science Learning and Teaching*, *18*(5).

Krueger, R. A., & Casey, M. A. (2000). *Focus groups: A practical guide for applied researchers.* 3rd Edition. Sage.

Kuh, G. D. (2009). The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, *141*, 5-20.

Lauría, E., Baron, J., Devireddy, M., Sundararaju, V. & Jayaprakash, S. (2012). Mining academic data to improve college student retention: An open source perspective. In *Proceedings of the 2nd International Conference on Learning Analytics and Knowledge* (pp. 139-142). ACM.

Larmuseau, C., Desmet, P., & Depaepe, F. (2019). Perceptions of instructional quality: Impact on acceptance and use of an online learning environment. *Interactive Learning Environments*, *27*(7), 953-964.

Lebow, D., & Wager, W.W. (1994). Authentic activity as a model for appropriate learning activity: Implications for emerging instructional technologies. *Canadian Journal of Educational Communication*, 23(3), 231-144.

Lombardi, M.M. (2008). Making the grade: The role of assessment in authentic learning. *Educause Learning Initiative*, *1*, 1-16.

Meyers, N. & Nulty, D. (2009). How to use (five) curriculum design principles to align authentic learning environments, assessment, students' approaches to thinking and learning outcomes. *Assessment & Evaluation in Higher Education*, *34*(5), 565-577.

Miles, M. B., & Huberman, A. M. (1994).*Qualitative data analysis: An expanded sourcebook* (2nd ed.). Sage Publications.

Morgan, D. L. (1988). *Focus group as qualitative research*. Newbury Park, CA: Sage Publications Inc.

Mueller, J. (2005). The authentic assessment toolbox: enhancing student learning through faculty development. *Journal of Online Learning and Teaching, 1*(1), 1-7.

Muilenburg, L.Y., & Berge, Z.L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education, 26*(1), 29-48.

Nafukho, F.M. (2007). The place of e-learning in Africa's institutions of higher learning. *Higher Education Policy, 20*(1), 19-43.

National Forum. (2021). *Next Steps for Teaching and Learning: Moving Forward Together*. National Forum for the Enhancement of Teaching and Learning in Higher Education.

Newmannn, F.M. & Wehlage, G.G. (1993). Five standards of authentic instruction. *Educational Leadership*, *50*(7), 8–12.

Nordmann, E., Horlin, C., Hutchison, J., Murray, J., Robson, L., Seery, M., & MacKay, J.R.D. (2020). Ten simple rules for supporting a temporary online pivot in higher education, *PLoS Computational Biology*, *16*(10), p. e1008242.

Orpwood, G. (2001). The role of assessment in science curriculum reform. *Assessment in Education, 8*(2), 135–151.

Palmer, S. (2004). Authenticity in assessment: Reflecting undergraduate study and professional practice, *European Journal of Engineering Education*, *29*(2), 193-202.

Powell, R. A., & Single, H. M. (1996). Focus groups. *International Journal for Quality in Health Care*, *8*(5), 499-504.

QQI (2020). *The Impact of COVID-19 Modifications to Teaching, Learning and Assessment in Irish Further Education and Training and Higher Education*. Quality and Qualifications Ireland.

Rajabalee, Y.B., & Santally, M.I. (2021). Learner satisfaction, engagement and performances in an online module: Implications for institutional e-learning policy. *Education and Information Technology, 26*, 2623–2656.

Rennert-Ariev, P. (2005). A theoretical model for the authentic assessment of teaching. *Practical Assessment, Research, and Evaluation, 10*(2).

Robinson, C. C., & Hullinger, H. (2008). New benchmarks in higher education: Student engagement in online learning. *Journal of Education for Business, 84*(2), 101-109.

Sacks, H. (1968), Student Fieldwork as a Technique in Educating Law Students in Professional Responsibility, *Journal of Legal Education*, 291 and 294.

Sharma, V. (2018). Soft Skills: An Employability Enabler. *IUP Journal of Sort Skills, 12*(2), 25-32.

Student Survey (2021). *Irish Survey of Student Engagement National Report*, Irish Social Science Data Archive.

Suskie, L. (2018). *Assessing student learning: A common sense guide*. John Wiley & Sons.

Swaffield, S. (2011). Getting to the heart of authentic assessment for learning. *Assessment in Education: Principles, Policy & Practice*, *18*(4), 433-449.

Swan, K., Shea, P., Fredericksen, E., Pickett, A., Pelz, W., & Maher, G. (2000). Building knowledge building communities: Consistency, contact and communication in the virtual classroom. *Journal of Educational Computing Research*, *23*(4), 359–383.

Thomson, L. D. (2010). Beyond the Classroom Walls: Teachers' and Students' Perspectives on How Online Learning Can Meet the Needs of Gifted Students. *Journal of Advanced Academics*, *21*(4), 662-712.

Valentine, S. (2009). Legal research as a fundamental skill: A lifeboat for students and law schools. *University of Baltimore Law Review*, *39*, 173.

Vu, T. T., & Dall'Alba, G. (2014). Authentic assessment for student learning: An ontological conceptualisation. *Educational Philosophy and Theory*, *46*(7), 778-791.

Wiggins, G. (1998). Ensuring authentic performance. Chapter 2 in *Educative Assessment: Designing Assessments to Inform and Improve Student Performance*. San Francisco: Jossey-Bass, pp. 21 – 4.