Service Quality Analysis of Student and Tutor Experience of a Moodle 4.5 Upgrade

Judith McKeon

Judith McKeon, MKLC, Midsummer Blvd, Milton Keynes MK9 3HP, UK.

Abstract

With advances in technology, alongside processes put in place during and following the pandemic, over the past four years we have seen an incremental growth in online education. To service this increase in digital learning, organisations have been seeking Learning Management Systems (LMS) that enable them to deliver a high-quality service to their learners and the tutors supporting them. This study explores the implementation of an upgraded Moodle 4.5 at MKLC, an online training provider, where learners work independently on self-paced courses and submit assignments for individualised feedback from their tutors. By collecting data from both tutors and learners, this paper offers a dual-stakeholder perspective on service quality in the delivery of online accredited qualifications. Using a SERVQUAL framework adapted for digital learning environments, questionnaires were sent to tutors and learners within two weeks of the platform upgrade. The instrument measured perceptions across five service quality dimensions, which were analysed using descriptive statistics and thematic analysis. Preliminary findings from 24 learners and 4 tutors indicate that most learners find their online experience with Moodle 4.5 positive, although they would find a Welcome Pack on navigating Moodle useful and believed badges would be motivating. They would also find it helpful to be directed to the next course following their current course. On the other hand, tutors found the upgraded platform more difficult to navigate and were not so satisfied with the quality, believing it made their tutoring task more time-consuming and less professional.

Keywords: Educational technology, Moodle 4.5, Online education, Service quality, SERVQUAL.

1. Introduction

Delivering education online is complex and not a cheap and easy substitution for face-to-face learning. It is more accessible and more flexible and suits the needs of many learners but, in many cases, it is viewed as inferior to classroom teaching and, at best, a second-choice option to supplement classroom delivery. Reasons for such views may lie in the early days of virtual learning when platforms were used mainly as static repositories and were limited in their abilities to engage learners. However, technology has advanced over the past few years, and online platforms have grown in their capabilities to provide an acceptable alternative to classroom teaching. This process was accelerated by the pandemic which forced education online but caught many unawares and resulted in the quality of delivery being diminished. It is the quality of the online delivery that determines the success of the course, and this is also determined by the quality of the platform. This paper provides a case study approach to exploring user perceptions of an upgraded Moodle platform to indicate if it is meeting the needs of both learners and tutors.

2. Importance of Quality

Today's Virtual Learning Environments (VLEs) are able to offer learners an engaging and motivating learning experience but to ensure this the design must be able to offer clear navigation to avoid any confusion (Martin & Bolliger, 2018; Sun & Chen, 2016). Even when learners are experienced online users, they can find any changes in their virtual environment time-consuming as they experiment with new tools. The quality of the design can therefore have an impact on motivation as changes can be frustrating to the user.

It is also important that all learners can participate so that the online platform presents an inclusive environment. Depending on the course, this may include captioning and transcripts, which are now more readily available for synchronous delivery, and multiple formats to meet all learner preferences. Resources such as text, audio and video presentations make learning more accessible, and VLEs need to offer opportunities for tutors to use these tools (Kelly, Phipps & Swift, 2004).

Feedback is one of the most significant ways in which online tutors connect to learners and give them a sense of belonging. Automated assessment may be provided but it is far more effective for learners to receive relevant feedback directly from their tutor to help them improve and thus reduce attrition (McKeon, 2025a; McKeon 2025b; Simpson, 2004). Online discussion forums can also be useful in making learners feel part of a community.

Learners tend to use recommendations for choosing online providers, given there are now so many available. In order to make choices, recommendations that come from existing or past users are the most valuable. Factors that influence learners are how well structured the online environment is and how easy it is to navigate: if it makes learners feel comfortable and there is clear communication as well as a logical design, this is more likely to influence enrolments (Gray & DiLoreto, 2016). Recommendations come from learner satisfaction with the quality of the provision and the layout of the course, which they may perceive determines professionalism.

3. Determining Quality through SERVQUAL Framework

A service quality (SERVQUAL) measurement framework comparing expectations with actual delivery was developed originally for customer services (Parasuraman, Zeithaml & Berry, 1988). Over the years it has been adapted for many other service areas, including evaluation of e-learning and digital education systems. There are five dimensions: reliability; responsiveness; assurance; empathy; and tangibles and each of these can be related to Moodle.

3.1. Reliability

In assessing how reliable Moodle is in supporting learning, aspects to be considered may be related to technical quality issues or course design. Measuring this may be by comparing expectations of accurate tracking of grades, submissions and progress as well as functionality, with the reality of the user experience. The features of the Moodle platform and how well these features work are integral to how users rate their satisfaction (Govindasamy, 2001).

3.2. Responsiveness

Responsiveness is how quickly and effectively learners can get support from their tutor or admin when needed, as well as the time it takes to upload or solve technical issues (Khan, 2005). If tutors take a long time to respond to messages for support, or if admin does not come back quickly to help with any login issues, this can have an impact on how users feel their needs are being met. It creates a sense of their value if Moodle enables timely support, and this also prevents frustration with the system. The availability of online help tutorials or FAQs can be beneficial as well.

3.3. Assurance

Having trust in the security and competence of those providing the service is paramount (Carroll, 2020). In terms of a Moodle delivery, this means secure logins and the way in which data is handled. Learners must feel confidence in the expertise of their tutor in navigating Moodle and be assured that online forums are safe and moderated. Grading of assessments must be transparent but, more recently, there has been the need for plagiarism and AI detection tools to be more readily available. Users want to feel their work is valued for its authenticity and any online environment must ensure learners' work is all their own.

3.4. Empathy

Learner support in an online learning environment should indicate personalised support through individualised feedback and enable accessibility features with clear instructions. The objective is to ensure the online course supports the needs of individual learners and is inclusive (Burgstahler, 2015). If learners are able to ask questions through an online messaging feature, or communicate directly with tutors when online, they are more likely to feel supported.

3.5. Tangibles

In a Moodle context, this refers to the visual design of the course, with easily identified topics and a consistent approach across different modules (Bozkurt, 2019). Users feel more confident if there is consistency in the layout of the course so that they can become more familiar with what is required. Resources should also show relevance and quality.

SERVQUAL can help to identify gaps in the quality of the service provided. By comparing user expectations with their actual experience, any weaknesses can be uncovered and enable the opportunity for quality improvement.

4. Objective of this Study

As part of an ongoing quality assurance process, we wanted to evaluate user experiences of changes to their online Moodle course. The Moodle platform was upgraded to version 4.5 under a new hosting service and the aim of the survey was to investigate both learner and tutor perceptions of the updated platform. This would then enable us to discuss further amendments and improvements if needed with the Moodle host. By surveying existing users, we could ensure comparisons were made with the earlier version of the platform, following a 2-to-3-week post-Moodle implementation.

5. Methodology

This study was carried out in the context of a UK online training provider, MKLC, which delivers self-paced and tutor-supported accredited qualifications. The company has been providing online education for more than twenty years and has recently upgraded its Moodle platform from version 4.1 to version 4.5.

The questionnaire was designed to fit the five SERVQUAL dimensions and mapped to an online learning context. A mixed methods approach was taken using a quantitative Likert scale and requiring qualitative open-ended responses. Using a database of current tutors and learners who had been active on the new upgraded Moodle within the past few days, an invitation was sent out to participate in a satisfaction survey. There were responses from 24 learners and 5 tutors, all of whom were assured of confidentiality and anonymity.

Microsoft Forms was used as the data collection tool to support this research. This was convenient and enabled participants to complete the survey efficiently, as it is a user-friendly tool that is often used for customer feedback. Invitees were given the opportunity to participate within a short timescale and were sent a reminder the day before the window closed.

Responses were analysed using descriptive analysis for the Likert scale questions targeted at each of the five SERVQUAL dimensions and there was thematic analysis of the qualitative responses. Tutor and learner perspectives were able to be compared, thus enhancing trustworthiness and credibility of the results.

6. SERVQUAL Satisfaction Rates

Four tutors had over 2 years' experience with MKLC and one tutor up to 2 years. The number of learners they currently supported varied, with two supporting up to 10 learners, one with up to 25 learners and two with more than 26 learners. All tutors had used other Learning Management Systems as well as Moodle.

Most of the learners had been studying with MKLC for more than 3 months, with some on courses for over a year. The majority were working towards Awards, although 25% were looking to achieve Certificates or Diplomas. Before studying online with MKLC, 21% already had extensive experience of online learning, although most (58%) had some experience. However, for 21% this was their first experience of online learning. When asked how many times per week they logged into Moodle, 54% confirmed they were online several times per week. Although 8% logged on less than once per month, the other 38% agreed they were online a few times per month.

Overall satisfaction rates with the upgraded version of Moodle varied significantly between tutors and learners (Table 1). Each SERVQUAL dimension was related to the specific experience of users. To ascertain reliability, learners were asked to evaluate the system performance and dependability for consistency and technical issues, whereas tutors were also asked about system performance, but in terms of accuracy in tracking assignments. Although learners were mainly satisfied with the new system, tutors were not so sure about it. Learners were reasonably satisfied with their access to information and feedback, but tutors did not have the same confidence in the system and its efficiency in helping them provide timely feedback to learners.

Table 1. Overall Satisfaction with Moodle 4.5

SERVQUAL DIMENSION	Tutor agreement	Learner agreement
Reliability (Learners - System Performance & Dependability) (Tutors – System Performance & Accuracy)	60%	88.9%
Responsiveness (Learners - Access to Information & Feedback) (Tutors – Efficiency in Providing Feedback)	40%	83.3%
Assurance (Learners - Confidence & Trust) (Tutors- Confidence & Accuracy)	100%	81.25%
Empathy (Learners - Understanding Student Needs) (Tutors – Supporting Tutor Needs & Interaction)	60%	83.4%
Tangibles (Learners - Visual Design & Layout) (Tutors – Visual Design & Workflow)	50%	88.9%

Tutors had full confidence, however, in the system's accuracy in recording student grades and progression, whereas learners were not so sure about information on their progress and where to find help and support about Moodle. This was the only dimension in which tutors scored more highly than learners. In terms of empathy, most learners were satisfied that there was understanding of their needs, although tutors were not so satisfied with the system supporting how they taught and interacted with learners. Learners were overall satisfied with the visual design and layout of their course, but tutors found the layout more difficult to access and manage their courses.

7. Improving the User Experience

The average satisfaction rating on their experience with Moodle 4.5 was 3.5 for tutors and 4.22 for learners. This indicates the gap between the different types of users and where more improvements for the online provision are needed. A significant 92% of learners believed that an interactive Welcome Guide would be useful for new students when they first logged in, as this would help them navigate the platform. Digital badges earned for completing modules was felt by 71% of learners to be a motivating factor, and 83% would find it helpful to be pointed in the direction of the next course they could do, based on what they were currently studying.

Tutors were asked if they thought Moodle 4.5 had improved their students' learning experience and 60% stated it had somewhat improved, although 40% saw no change. Most of the tutors did not need any support in helping them adapt to the Moodle 4.5 upgrade although one tutor noted they found the changeover very difficult to navigate to where they needed to be, that there were too many steps. This tutor was experienced and stated it was very unusual for them to be lost using this platform. Another tutor commented that when learners submitted in draft form and the tutors had no notification, it could portray a negative reflection on the tutor's professionalism. There was also a call for automatic AI detection within Moodle and a reminder to let learners know if they needed to resubmit following feedback.

Learners were asked what improvement to Moodle would make the biggest difference to their learning experience and most agreed they were satisfied with the platform as it was. One learner suggested a video on expectations of the course, and another would like to be notified when there were new responses on the forums. When asked to comment on their learning experience with MKLC, most learners were satisfied and had nothing more to add, as they felt their course was easy to follow, manage and get feedback. Two learners would prefer more

clarity for practical unit requirements, while one learner commented on how supportive their tutor was, always giving constructive feedback. This was useful to know areas of strengths as well as areas for development.

8. Discussion

The expectation was that both learners and tutors would find the upgraded Moodle 4.5 providing them with an improved user experience. Although the rates from the learners based on SERVQUAL were reasonably high, they were not at the level anticipated. The tutors in general rated the whole experience more disappointing. However, this may be because there was only a two-week timescale between the implementation of the new Moodle and the survey. It may simply be that all new systems, including upgrades, need to have time for users to become more familiar and comfortable with using them. Clear navigation was a key point in being able to engage and motivate users as had previously been noted in literature (Martin & Bolliger, 2018; Sun & Chen, 2016) and this upgrade may have caused tutors more frustration as they had to spend time navigating the new system. This makes it most important for MKLC to ensure that there are clear directions and ongoing support for tutors. It should be noted that tutors did not feel they needed any support or training in using the upgraded Moodle 4.5 and perhaps their expectations were that there would not be much difference.

Any issues of reliability were not experienced in the same way by learners, who had a much higher satisfaction rate for Moodle 4.5 than their tutors. Although learners believed a Welcome Pack was useful for new candidates, they did not find the system difficult to navigate. This was also noted in how satisfied the learners were with feedback processes, whereas the tutors rated this as one of the worst aspects of all the Moodle 4.5 features. Learners may be more open to asking for guidance if they encounter a problem online, and they have access to support when needed. However, tutors may feel reluctant to ask for help for fear of being thought incompetent.

Tutors had full confidence in Moodle 4.5 in its keeping of records but learners were unsure where to find these records online. As tutors acknowledged their issues with navigating the system, it is possible the learners did not have confidence in their tutors' ability to navigate the system. Having confidence in those providing the service is important (Carroll, 2020) and it is likely that some of the tutors were relaying their confusion with the system to their learners.

Learners felt their needs were being met on Moodle 4.5, but tutors were generally dissatisfied with the way in which the system allowed them to interact with their learners and found the new, unfamiliar layout more difficult to access. Although Gray & DiLoreto's (2016) study found that feeling comfortable on the platform is likely to influence learner enrolments, this study highlights the need to ensure tutors are able to find their way around the site easily as their confidence in using Moodle 4.5 can have an impact on satisfaction rates of their learners. Using an upgraded Moodle site may not be as smooth a process for tutors as it is for their students and this needs to be taken into account, despite tutors feeling they have lots of experience and do not need any extra training or support.

This study demonstrates how the SERVQUAL framework can inform continuous improvement in educational technology by providing evidence-based guidance for MKLC to develop its online provision.

References

Bozkurt, A. (2019). From distance education to digital learning: A holistic framework and a design-based research study. *Asian Journal of Distance Education, 14*(1), 42–63. https://asianjde.org/ojs/index.php/AsianJDE/article/view/352

Burgstahler, S. (2015). *Universal design in higher education: From principles to practice* (2nd ed.). Harvard Education Press.

Carroll, J.-M. (2020). Designing learning systems for trustworthy experiences. *Education and Information Technologies, 25*, 4479–4494. https://doi.org/10.1007/s10639-020-10166-y

Gray, J. A., & DiLoreto, M. (2016). The effects of student engagement, student satisfaction, and perceived learning in online learning environments. *International Journal of Educational Leadership Preparation, 11*(1), 1–20. https://files.eric.ed.gov/fulltext/EJ1103654.pdf

Kelly, B., Phipps, L., & Swift, E. (2004). Developing a holistic approach for e-learning accessibility. *Canadian Journal of Learning and Technology, 30*(3). https://doi.org/10.21432/T2F59X

Khan, B. H. (2005). *Managing e-learning: Design, delivery, implementation, and evaluation.* Information Science Publishing.

Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning, 22*(1), 205–222. https://doi.org/10.24059/olj.v22i1.1092

McKeon, J. (2025a). Achievements and attrition: Investigating an online course. *GAS Journal of Education and Literature (GASJEL), 2*(5), 1–7.

McKeon, J. (2025b). Evaluating quality in online teacher training: Insights from student feedback. *GAS Journal of Arts, Humanities and Social Sciences (GASJAHSS), 3*(9), 1–7.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12–40.

Simpson, O. (2004). The impact on retention of interventions to support distance learning students. *Open Learning, 19*(1), 79–95. https://doi.org/10.1080/0268051042000177838

Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education: Research, 15*, 157–190. https://doi.org/10.28945/3502