**Insight into the challenges of implementing e-Proctoring exams at a regional university during COVID-19**

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**Abstract**

COVID-19 pandemic has had a profound effect on the global education sector, requiring

universities to quickly modify their pedagogical approaches. Even though the virus arrived

later in the South Pacific, the effects were still rather severe. Lockdowns that were imposed

throughout the region made it difficult for people to travel and conduct traditional in-person

education, which led colleges to adopt alternate teaching strategies.

During this period, the University of the South Pacific (USP), a regional university with its

main campus situated in Fiji, encountered difficulties. USP had to quickly deploy Emergency

Remote Teaching (ERT) across its 14 scattered campuses due to the unexpected lockdowns.

All institutions faced inherent challenges with ERT, but USP's regional organisation created

additional complications. Campus-to-campus geographical separations, differences in on-site support systems, and regional variations in internet connectivity all contributed to a great deal of stress for the university's personnel, administration, and student body. Travel limitations made things much more difficult by making it impossible for USP faculty members to give in person lectures at nearby campuses.

USP used a combination of their current Learning Management System (LMS), Moodle, and

easily accessible online tools like BigBlueButton (BBB) or Zoom to address these issues.

Since 2006, the university has been using Moodle to ensure that all courses have dedicated

online spaces. Moodle was already a well-known learning management system among USP

academics. During the lockdowns in 2021 and 2022, USP moved all face-to-face (F2F)

classes online, greatly reducing disruptions due to this prior familiarity.

The introduction of online tests represented a significant modification. USP implemented

Proctorio, an e-proctoring programme, to make sure that accreditation standards for courses

that typically required exams were met (Hussein & Yusuf, 2021). This change required more

work than just transferring lectures and course materials to the internet. To guarantee the

seamless operation of e-proctored online tests, USP conducted training sessions, stringent

testing procedures, and a trial programme for the Proctorio system. To integrate the new

assessment system, the university's LMS was also modified, improving user experience and

navigation for both teachers and students.

This paper explores USP's ERT experiences during the COVID-19 lockdowns. It focuses on

the steps involved in implementing e-proctored online exams, including training programs and testing protocols. The LMS changes made to accommodate the new online assessment

method are examined in this research. It also looks at the challenges and successes USP

students had when taking online tests using e-proctoring software. The purpose of this study

is to provide important insights into the special difficulties and effective adjustments that a

regional institution experienced during a worldwide pandemic by looking at these elements,

especially in relation to upholding academic integrity through online examinations.

**Introduction**

The global Covid-19 pandemic imposed an unparalleled shift to online learning, described as

"Emergency Remote Teaching" (ERT) (Hussein et al., 2020; Mishra et al., 2020). The

University of the South Pacific (USP), serving 12 island nations, faced unique challenges due to the geographical dispersion of its student body and varying levels of internet access. This transition emphasised the need for reliable and secure assessment methods, prompting the adoption of e-Proctoring technologies to ensure the integrity of online examinations (Hussein & Yusuf, 2021).

e-Proctoring uses artificial intelligence to monitor students during exams, offers a solution for

maintaining academic standards in remote settings. Proctorio was chosen as the platform at

USP, and provides various features, including identity verification, behaviour monitoring, and

secure browser capabilities, to prevent cheating (Chand & Hussein, 2022). The

implementation of e-Proctoring at USP was driven by the need to maintain high standards of

academic integrity across a diverse and technologically varied student population. While e-

Proctoring has been widely implemented in other educational institutions, USP's unique

geographical and logistical challenges required a tailored approach.

The existing literature underscores both the benefits and potential drawbacks of e-Proctoring. Benefits include: the ability to conduct secure, remote assessments, ensuring fairness and academic integrity (UNESCO, 2020a). However, issues such as privacy concerns, accessibility challenges, and technical difficulties can arise, particularly in regions with limited infrastructure (UNESCO, 2020b). This paper aims to explore USP's experience with e- Proctoring, focusing on the strategies used, challenges encountered, and the overall impact on the academic community. The insights gained from this study will provide valuable

guidance for other educational institutions facing similar challenges.

**Practice under scrutiny**

e-Proctoring implementation at USP involved several critical steps to ensure the process was as smooth as possible for all stakeholders (students and teaching staff). The selection of Proctorio was based on its comprehensive monitoring features, which include automated

identity verification, behavioural tracking, and secure browsing functionalities. To facilitate a

seamless transition, Centre for Flexible Learning (CFL) organised extensive training sessions for both students and teaching staff, including live Zoom sessions, detailed user guides, and a responsive technical support team (Chand & Hussein, 2022).

Mock tests and exams were conducted as part of the preparatory phase, allowing students to familiarise themselves with the e-Proctoring environment and resolve any technical issues

beforehand. This trial run was crucial for identifying potential problems such as connectivity

issues, which were particularly an issue for students in remote areas with limited internet

access. The feedback from the mock exam highlighted the importance of having contingency

plans and support systems in place to assist students experiencing technical difficulties.

During the actual exams, Proctorio's AI-driven system monitored students, flagging any

behaviours that diverged from expected norms, such as looking away from the screen or

engaging in unauthorised activities such as talking to someone or having more than one

person on the screen. This data was then reviewed by teaching staff to determine if any

cheating had occurred. While the system effectively deterred cheating and maintained the

integrity of the exams, it also introduced challenges. Some students reported feeling

uncomfortable with the level of surveillance, raising concerns about privacy and the

psychological impact of being monitored continuously (Hussein & Yusuf, 2021).

Despite these challenges, the overall response to e-Proctoring was very positive. Most

students and teaching staff appreciated the system's ability to uphold academic integrity,

although the experience underscored the need for ongoing support and clear communication

to address any concerns and ensure a fair testing environment.

**Discussion and conclusion**

Implementation of e-Proctoring at USP at the peak of COVID-19 pandemic highlighted

several key outcomes and challenges, which can be categorised into maintaining academic

integrity, addressing technical and logistical challenges, managing privacy and ethical

considerations, and supporting the adaptation of students and teaching staff.

Maintaining academic integrity in the absence of conventional in-person exams was the main goal of e-Proctoring. The use of Proctorio provided a controlled and secure environment, deterring cheating through its comprehensive monitoring capabilities. The AI-driven system flagged unusual behaviours, allowing teaching staff to review and address potential issues.

This feature was particularly valuable in maintaining the credibility of assessments and

ensuring that all students were evaluated fairly, regardless of their location (Hussein et al.,

2020; Mishra et al., 2020). Teacher’s feedback indicated a high level of trust in the system's

ability to uphold academic standards, a crucial factor in maintaining institutional credibility.

There were difficulties in deploying e-Proctoring at USP, mainly in terms of technological and

administrative concerns. Internet connectivity problems were a significant concern, especially for students in remote areas with limited or unstable internet access. These issues not only impacted the stability of the Proctorio system, but also added to student anxiety, as they feared disconnections could affect their performance and the validity of their exam results. To mitigate these concerns, CFL provided additional technical support and resources, such as guidelines for troubleshooting common issues and a helpline for real-time assistance on Zoom. However, these measures highlighted the broader need for improved infrastructure to support online learning and assessments, mainly in geographically distributed regions.

The use of e-Proctoring brought up significant ethical issues, mainly in relation to data

security and privacy. Concerns over the possible abuse of personal data and the

psychological effects of continual monitoring were raised by students and teaching staff in

response to the system's usage of cameras and screen monitoring to deter cheating. To allay these worries, USP made sure Proctorio complied with stringent data protection guidelines, which included data encryption and short data retention times. In addition, the university strived to maintain open lines of communication with students and teachers on the operation of the system and the information that would be gathered and retained. Despite these assurances, the experience emphasised the need for ongoing dialogue about the ethical implications of using such technologies, particularly in terms of balancing the need for security with respect for individual privacy (Chand & Hussein, 2022).

Support for both teachers and students were critical to the implementation of e-Proctoring's

success. USP's comprehensive training program, which included live demonstrations, Q&A

sessions, and detailed guides, was crucial in helping both groups adapt to the new system.

Continuous support, including a dedicated technical helpdesk and online resources, was also essential in addressing any issues that arose during the exams. Student feedback indicated that while the majority felt adequately supported, there was a need for more targeted assistance for those with limited technical skills or access to reliable technology. This experience highlighted the importance of providing comprehensive, ongoing support to

ensure a smooth transition to new technologies (Hussein & Yusuf, 2021).

In conclusion, the deployment of e-Proctoring at USP during the height of the COVID-19

epidemic showed that technology can successfully maintain academic integrity in distant

assessments with careful planning and strong support systems. However, the experience also highlighted several areas for improvement, particularly in addressing technical and ethical challenges. Future implementations should prioritise enhancing infrastructure to ensure equitable access, providing comprehensive support, and training, and addressing privacy concerns to build trust among students and teaching staff. The lessons learned from USP's experience can serve as valuable guidance for other institutions considering the use of e-Proctoring technologies, particularly in regions with similar challenges.

**Take Home Message**

The implementation of e-Proctoring at USP highlights the critical role of technology in

maintaining academic integrity in remote assessments. Key lessons include:

i. The importance of robust technical infrastructure.

ii. Comprehensive training and training plans.

iii. Transparent communication regarding data privacy.

While e-Proctoring effectively prevents academic misconduct, institutions must address the

ethical and technical challenges it presents. Ensuring equitable access to necessary

resources and maintaining an open discussion about privacy concerns are essential for

fostering trust and ensuring a positive experience for all users. The insights gained from

USP's experience provide a roadmap for other educational institutions navigating similar

transitions to online learning and assessment.

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