

# ONLINE ASSESSMENT USING SECURED OPEN-SOURCE PLATFORM IN A MALAYSIAN PUBLIC UNIVERSITY: PERCEIVED USEFULNESS, PERCEIVED EASE OF USE AND ACCEPTANCE

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## ABSTRACT

**Background:** Online teaching, learning, and assessment have become the new norms in higher education institutions, including medical schools. The Covid-19 pandemic has forced medical schools worldwide to use the online environment to deliver their curriculum. Academics must find an effective approach to deliver their course content to learners and conduct assessments via online platforms.

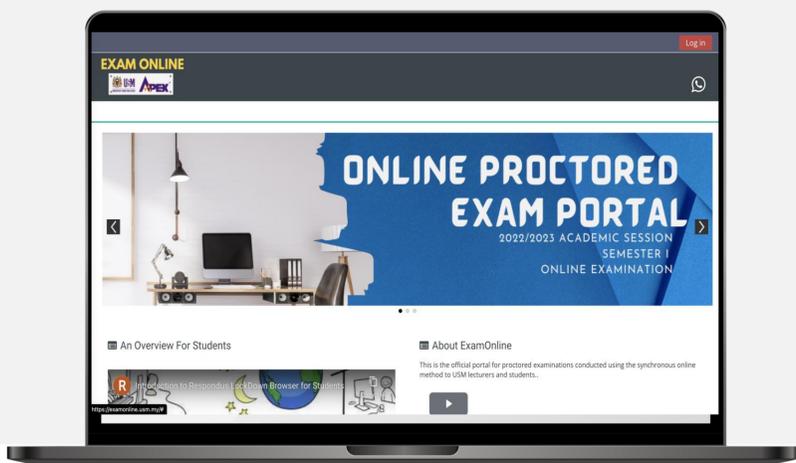
**Methodology:** This evaluation used a survey design. Feedback from year 1 to year 4 of the medical students was sought. We utilized Google Form to collect the data. The questionnaire consisted of three sections: demographic, quantitative, and qualitative. Demographic and quantitative data were analyzed using SPSS version 27, whereas qualitative data were analyzed using ATLAS.ti version 9.

**Results:** All the items for perceive usefulness, perceive ease of use and acceptance have mean score more than 4.00 (positive areas) except for items "I prefer online examination compared to paper-based examination" which has mean score of 3.78 (areas for improvement). No item had a mean score below 3.00 (areas of concern). For the qualitative data, the total number of codes generated was 336. These were then grouped into three themes: advantages, disadvantages, and suggestions. Eight subthemes emerged from the advantages theme, 11 from the disadvantages theme, and 11 from the suggestions theme.

**Conclusion:** Moodle is perceived as a feasible and acceptable replacement for traditional face-to-face assessments, especially for theory examination. However, a few disadvantages may compromise the validity and reliability of the assessment. Thus, medical schools must try their best to address these issues to minimize the negative aspects of online assessment.

## OBJECTIVE

The purpose of this evaluation was to evaluate the perceptions of medical students in terms of perceived usefulness, perceived ease of use, and acceptance of online examinations using a secured open-source Moodle platform at the USM School of Medical Sciences.



Perceive usefulness, perceive ease of use and acceptance of online examination.

Domain	Items	Mean*(n=429)	Std. Dev.
Perceive usefulness	The platform makes assessment activity run smoothly	4.18	0.960
	The platform used makes assessment feasible (during pandemic)	4.44	0.773
	The platform is effective	4.34	0.857
Perceive ease of use	The platform is easy to use	4.42	0.807
	The platform used is user friendly	4.30	0.938
	The instruction for the assessment was clear and understandable	4.59	0.649
	The platform is flexible (example: can use any device, ect)	4.14	1.032
Acceptance	I prefer online examination compared to paper-based examination	3.78	1.231
	Generally, the online examination is acceptable to replace paper-based examination	4.08	1.095

## THEMES

Advantages	Disadvantages	Suggestions																																	
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## ADDED VALUES

Moodle is open-source platform. The security of the platform can be enhanced by using e-proctoring system. Higher education institutions can use the platform as reliable online student assessment with very low cost.

## USEFULNESS

Provide evidence in literatures regarding the validity of the open-source platform

## COMMERCIALIZATION POTENTIAL

Provide training for other faculty members from other higher education institutions on how to use the LMS for examination.

## RECOGNITION

Best e-Poster Award at Malaysian Association of Education in Medical and Health Sciences (MAEMHS) Conference, Feb - March 2023.



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