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Preface

Pioneering Educational Perspectives: Series 2025 is a collection of thought-provoking insights and research contributions exploring contemporary educational trends and practices. This eBook presents a diverse range of perspectives on innovative teaching methodologies, digital learning strategies, and transformative approaches in education. Designed to serve as a resource for educators, researchers, and practitioners, it aims to inspire meaningful discussions and advancements in the field. Through carefully curated chapters, this publication offers fresh ideas and practical solutions to enhance learning experiences in an ever-evolving educational landscape.

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EzLy-DReAM: A DUAL-OPTION DIGITAL RECORDING ASSESSMENT METHOD FOR THE SUSTAINABLE USE OF PRE-INSTALLED AUTO-TRACKING CAMERAS IN CLASSROOMS

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ABSTRACT

EzLy-DReAM, a digital recording assessment method, was developed by a team led by a Chemical and Community course lecturer to enhance the accuracy of evaluating student presentations. This method uses classroom auto-tracking cameras to record students presenting face-to-face and then review their performance through video recordings. Its goal is to improve evaluation accuracy, focus on presentations, recognize student efforts, enhance presentation skills, and repurpose unused cameras for learning purposes. Challenges in assessing live presentations led to the adoption of this double assessment method. WebEx and Canva were used for recording and feedback, with positive student responses prompting its continued use. The lecturer still evaluates presentations immediately, but the double assessment provides additional validation. This innovative approach has been used for four semesters, receiving positive feedback and improving the overall learning experience by utilizing remote learning cameras for evaluation and marking student presentations.

KEYWORDS: Accuracy, Auto-tracking camera, Digital application, Double assessment, Video recording

INTRODUCTION AND LITERATURE REVIEWS

Students of the PPA3143 Chemical and Community course must present in person twice each semester, presenting challenges for instructors who must observe, question, and evaluate students simultaneously. To address this, the EzLy-DReAM method was created, utilizing digital recording assessment to enhance the evaluation process. Research by Tuma (2020) suggested that video recording can improve objectivity and standardization in skills evaluation, increasing the validity of competency-based assessments. Zia et al. (2018) also highlighted the growing interest in this assessment technique. Despite initial challenges, the benefits of video recording for evaluations are significant. Kane et al. (2020) recommended integrating video recordings to improve student performance, while Bautista and Manalastas (2017) found video-based assessments to be just as reliable as direct observations. By combining video feedback with focused instruction, student performance can be greatly enhanced. A pertinent discovery was made by Jabbour and Sidman (2011), who effectively employed video-based assessment

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to appraise operative skills. This finding serves as an inspiration for the development of the EzLy-DReAM method. This innovative technique integrates WebEx and Canva desktop applications, along with an auto-tracking camera. It not only improves upon traditional practices but also maintains practicality, thereby offering a significant advancement in digital recording assessment methodologies.

PROBLEM AND OBJECTIVE

In the classroom, lecturers face the challenging task of observing, listening, questioning, and evaluating students' in-person presentations. This can be overwhelming due to time constraints, potentially impacting the quality of assessments. There is concern that focusing on evaluation may compromise the lecturer's ability to engage fully with the presentations, leading to decreased motivation among students. Additionally, there is a challenge in ensuring accurate assessments within limited time frames. The lack of time for question-and-answer (Q & A) sessions during live presentations further complicates the evaluation process. While remote learning technology like auto-tracking cameras was initially introduced during the pandemic, its potential for enhancing traditional in-person instruction seems to have been overlooked. Repurposing such advanced technology for educational purposes could greatly benefit various aspects of teaching and assessment in the classroom.

The EzLy-DReAM method focuses on five key objectives. The first objective aims to enhance the assessment process for student presentations by utilizing video recordings for a more accurate evaluation. The second objective provides lecturers with more time to engage with presentation content without rushing rubric assessments. The third objective aims to motivate presenters by offering recognition and feedback from both lecturers and peers. The fourth objective highlights the importance of improving students' presentation skills and slide quality with meaningful feedback. The method is designed to allocate sufficient time for this purpose. Lastly, the fifth objective repurposes cameras as educational resources for recording in-person presentations, promoting resource efficiency.

DESIGN DESCRIPTION

The main technical tool used is a "Remote Learning Auto-Tracking Camera," which is a compact and versatile automated camera that follows instructors during presentations. It is commonly used in higher education to record lessons for students to access in real-time or later through a learning management system. Universiti Malaysia Terengganu has implemented this camera in all classrooms to support hybrid lecture formats during the pandemic from 2020 to 2022.

The EzLy-DReAM design offers two technical options for implementation. For WebEx use, the lecturer has to log into his/her WebEx account on the classroom desktop connected to a projector. The presenters will download their slides onto the desktop and share them through the lecturer's WebEx account to start the presentation. They must also activate recording. For Canva users, students sign into their Canva accounts on the desktop connected to the projector before starting their live presentations. Their slides should be ready within the app. Students present through Canva while recording the session, capturing it with the classroom's auto-tracking camera. After presenting, the video is downloaded from Canva and shared with the lecturer via Google Drive. This process is repeated for each group of students until all presentations are finished.

The assessment method consists of two phases. The first phase is a live, face-to-face assessment where the lecturer records scores on a rubric after the presentation. The second phase is a video recording re-assessment, where the lecturer reviews the video of the presentation independently. This allows for a detailed evaluation by rewinding, fast-forwarding, and

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pausing the recording. These processes aim to ensure the reliability of the initial assessment and validate the marks awarded.

VISUALS



Picture 1. An illustration of an auto-tracking camera.



Picture 2. The auto-tracking camera in the classroom IBH8 at UMT.

NOVELTY AND UNIQUENESS

EzLy-DReAM represents a pioneering digital double assessment methodology that leverages an innovative application of a remote learning auto-tracking camera, which serves as the primary technical tool for video documentation within the classroom setting. This camera operates through body detection technology, eliminating the need for a cameraman during the recording process. This advancement has allowed us to conserve both time and financial resources effectively. Typically, the WebEx application is employed to facilitate and document online meetings, lectures, and presentations. However, in the context of the EzLy-DReAM approach, we have creatively adapted this application to capture our students' live face-to-face presentations for the purpose of double assessment, marking a novel application of the WebEx platform. Additionally, while the Canva application is generally utilized for content creation across various platforms and media, we have innovatively employed its recording feature to document our students' classroom performances, enabling a subsequent re-assessment after class. This application has proven successful, representing another significant innovation in our methodology.

BENEFITS TO MANKIND

The implementation of the EzLy-DReAM method offers a variety of benefits in problem-solving, enhancing quality of life, and contributing positively to the environment. Firstly, this method enables lecturers to allocate more time to focus on student presentations, thereby eliminating the urgency associated with completing rubric assessments. This increased attention fosters a sense of motivation and appreciation among student presenters, as they receive undivided focus from their lecturer. Furthermore, the EzLy-DReAM method improves upon conventional on-site marking techniques by facilitating a two-step assessment of student performances. The second evaluation can be conducted by reviewing recordings from applications such as Canva or WebEx, which has been demonstrated to enhance the accuracy of initial grading. Additionally, the application of the EzLy-DReAM method during face-to-face presentations allows for a more extensive question-and-answer session, as it reduces the time spent on immediate evaluations. Finally, the creative repurposing of neglected cameras as a key technical tool in the EzLy-DReAM method contributes to sustainability and reduces waste.

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COMMERCIAL POTENTIAL

Two avenues for commercialization can be proposed for future development. The first involves the creation and publication of a guidebook titled "Compilation of Innovative Assessment and Evaluation Techniques through Digital Applications." This guidebook could serve as a manual for emerging methodologies in teaching, training, and even judging competitions. The second potential for commercialization of EzLy-DReAM lies in its promotion as a key assessment method integrated into the curricula of various subjects and courses across educational institutions at both the school and university levels.

CONCLUSION

The analysis of project implementation effects and survey results led to three key conclusions. Firstly, using the EzLy-DReAM method with video recordings from WebEx and Canva for student presentations showed reliability similar to live assessments. Secondly, this EzLy-DReAM method is a groundbreaking approach to video-supported assessment and evaluation, enhancing objectivity and standardization. It improves traditional assessment practices. Lastly, students in the presenting group appreciated the EzLy-DReAM method as it allowed the lecturer to focus on providing detailed feedback without the need for the time spent filling the assessment forms. This sense of recognition and appreciation enhances the overall presentation experience for students.

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