

Development of Mobile App (P_Lab) for Enhancing the Student Understanding In Practical Work

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Abstract— Mobile applications which are also known as mobile apps is a software program which is developed for mobile devices such as smartphone and tablets. Recently, the development of mobile apps for the educational purpose has been expanding rapidly. It becomes as one of a powerful tool for transforming learning and for improving the quality of education, enhancing the student understanding, helping affirm as well as advance the relationships between educators and students. Among the incredible number of mobile apps, there are a large number of apps for educational purposes. However, there is still a lack of mobile apps which focus on enhancing student understanding in Practical Work (PW). PW is important and plays a central role in Technical and Vocational Education and Training (TVET). It is because PW can develop hand on skill and at the same time as a bridging between theory and practice. However, most of the student cannot do well in PW because; students are not interested to read lab sheets, lack on preparation as well as lack on the understanding in theory which is related to PW. Therefore, P_Lab is developed with aim for enhancing the student understanding in the PW. P_Lab is a mobile app that is developed from AppMakr.com which is a do-it-yourself platform and the process requires less coding knowledge. To study the effectiveness of the P_Lab, pre-test, post-test and a questionnaire has been given to the Electrical Engineering student in Politeknik Melaka. Results showed that students made extensive use of resources provided from P_Lab, considered the P-Lab to be beneficial for enhancing their understanding in practical work, and found that it is easy to use with minimal support and training. An analysis showed a statistically significant increase in understanding scores for practical work-related questions after the introduction of P_Lab mobile app.

Index Terms— Practical Work, Mobile app, Educational Tool, TVET, Enhance student understanding