# UVIC x VAIC 2024 Extended Abstract Template

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Please provide a 50 – 100 words summary of the manuscript. Classical way of conducting a practical session by distributing a manual with lengthy description on the procedures often lead to disengagement of the students on following the correct protocol in performing a specific laboratory test. Visual learning is more effective and hold more appeal than plain text. The blend of augmented reality and infographic is expected to become a motivational method in enhancing students’ attention in going through the manual. The result of this study indicated that the majority of the students had positive perceptions of the use of AR-embedded infographic.

***Keywords:*** *Augmented reality; Infographic; Laboratory; Practical class; Visual learning*

This extended abstract should consist of minimum of 700 words and a maximum of 1000 words including (References and Acknowledgements). With most of the fact based knowledge being discovered long ago, as a never changing fundamental resources for our education; the advancement in the education system is now lies within on the outreach to more peoples who are in the field of interest and on the effectiveness the knowledge is being delivered and grasped easily. Today, we live in 21st century, and technology has become an integral part of our everyday lives. Assimilation of the technology in education system can no longer be denied and thus making use of it is thought to be benefit both educators and learners. Education with traditional methods as we know are becoming a thing of past. Such that the classical way of conducting a practical session by distributing a handout or manual with lengthy description on the standard operational procedure often lead to disengagement of the students on following the correct protocol in performing a laboratory test. It is thus important to be able to grab the attention of students through the helps of modern technologies.

Augmented reality (AR) in education is taking a leading position in the education technology industry. It provides an enriched view on a plane subject and adding layers with contextually useful information. As people prefer break down information and data that would otherwise have been difficult to digest, infographics serves as a great tool to allow people to easily digest information through the use of visual data, charts, and statistics. With the proper use of color, proportion, and negative space, information can be transformed into memorable, attention-grabbing and even persuasive graphics. It is therefore effective than text-based content because of highly shareable in which it is accessible to almost everyone and not only a strong reader. The blend of AR and infographic is expected to become a motivational method in enhancing students’ attention in going through the manual of specific laboratory test. And collectively stimulated multi-senses through the practical session to allow greater learning takes place.

A maximum of 1 table and 1 figureis allowed. Please ensure that table and figures do not account for more than 2/3 of a page when taken together.

Table 1: Formatting used in heading paragraph formats, table and figure.

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| --- | --- | --- | --- | --- |
| Format name | Font size | Font style | Blanc space | |
|  |  |  | before | after |
| Heading 1 | 11 pt | Bold | 12 pt | 3 pt |
| Heading 2 | 11 pt | Italic | 6 pt | 3 pt |
| Heading 3 | 10 pt | Standard | 6 pt | 0 pt |
| Table title | 10 pt | Standard | 12 pt | 3 pt |
| Figure caption | 10 pt | Standard | 3 pt | 12 pt |

In order to accomplish the aim of this study, infographic of a related laboratory test from one of the practical session was prepared. This infographic was then embedded with AR on the most prominent section to allow the users scan and receive video of that particular laboratory test procedure on their smartphone. Candidates were then required to go through the AR-embedded infographic and traditional manual and the closed ended questionnaire was used to collect the required data. The targeted population for this study was the students (45) of DVM 2 from Faculty of Veterinary Medicine, Universiti Malaysia Kelantan.

In this research, the primary data was used for gathering information. Result showed that there were 78% students think that AR-embedded infographic attracts their attentions better than the traditional manual. Seventy-six percent of them agreed that AR-embedded Infographic handout is interesting and 67% of them think it is easier to be understand. However only 58% and 60% of the students prefer to have AR-embedded infographic to substitute traditional manual handout for their practical class and even incorporated into lecture. And the reasons given on this low agreement are mainly due to lack of support on either software and hardware viz. limited internet access and restricted system (only android) can be used and plenty of technical issues due to the early development. One point that encouraged to continue with this method is whereby most of the students (75%) think that AR-embedded Infographic is helpful in self-pace learning. Overall, the analysis of the data indicated that the majority of the students had positive perceptions of the use of AR-embedded infographic as a manual for practical class.

Peoples learn more when content drives the choice of modality, it is believed that one can learn more effectively if they use their preferred style more often. This AR-embedded Infographic is not restricted for campus or institutional use. We believe that promotion on community campaign for instance on public health and environmental issues can also be addressed more effectively through the use of AR-embedded Infographic poster. Practical manual (book) with compilation on AR-embedded Infographic of all topics can be produced and marketed. Besides, AR-embedded Infographic poster can also be designed and distributed to authorities such as hospital, museum, zoo and etc. for public education. This project is to support the National policy on Industry 4.0 for digital transformation of the education sector in Malaysia. Also, to provide quality education with AR technology to all the students (United Nations Development Programme).

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