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TEACHERS' CHOICE VERSUS LEARNERS' ATTITUDE: INTERACTIVE LEARNING TOOLS FOR SUSTAINABLE EDUCATION

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Abstract

Technological advances offer a new shift of change to education for sustainable development. Education for sustainable development encourages knowledge, skills, values, and behaviour to enable a more sustainable society. In this era, it is almost impossible to come by without the help of technology. It is gradually incorporated into classroom instruction to increase learner engagement and connection with teaching and learning materials. However, technological advancement hand-built a vast gap between the median household income group of T20, M40, and B40 in Malaysia. With the current emphasis on 21st Century Skills in Education 4.0, learners from B40 (low-income) families with an average family income below RM3,000 find it challenging to cope with education. This paper aimed to distinguish the attitude of 40 primary school learners from low-income families towards using technology in the current time. Besides, 40 preservice teachers were surveyed of their choice of integrated features in online learning tools that encourage the development of independent learning were identified. Findings showed that teachers are more likely to choose digital educational tools that are easy to use and interesting to the learners, allowing them to open up and communicate freely during lessons.

1. Introduction

Technological advances offer a new shift of change to education for sustainable development (Kant, 2020). It is gradually incorporated into classroom instruction to increase learner engagement and connection with teaching and learning materials. With that advancement, today's world changed to a new type of online learning (Firat & Bozkurt, 2020). Educations are now experiencing an enhanced version of the teaching and learning process (Rahamat et al., 2017). Rahman (2021) investigated the effectiveness and the problems learners from Assam, India, faced while learning online. The results showed that the majority of the learners perceived online learning as partially effective. Learners faced trouble with their current environment. Be it connectivity, lack of devices, or lack of skill. It could be seen in this study that in order for learners to perceive online learning as practical, the education authority should first try to eliminate the challenges present. However, eliminating challenges is not the only thing. Jović et al. (2017) studied the E-learning usefulness of 286 learners and discovered that materials with an attractive design would motivate learners to learn and generate positive attitudes. This can be seen that even if learners do not face challenges, it is equally important that the interactive tools used should be inviting and provide a suitable learning environment to elicit positive attitudes (Valantinaitė & Sederevičiūtė, 2020).

2. Problem statement

Technological advancement has created a vast gap between the median household income group of Malaysia's T20, M40, and B40 at the current time. It is unfortunate that not every child has the same luxury of having their studies online. With the current emphasis on 21st Century Skills in Education 4.0, learners from B40 (low-income) families with an average family income below RM3,000 find it challenging to cope in education. Learners from higher-income households do not have issues learning online, but those who struggle in the online lessons are due to their unfortunate housing situations (Van Lancker & Parolin, 2020). Learners have every right to proper education. If these learners cannot find the right motivation and environment to support their learning, they would eventually drop out or be left behind (Mokshein et al., 2016).

3. Research objectives and research questions

Two research objectives were set for this study as stated below:

i.   to distinguish the attitude of primary school learners from low-income families towards the use of technology in the current time.

ii.   to identify preservice teachers' preference on integrated features in online learning tools that encourage the development of learners' independent learning.

4. Research Methods

This study used a quantitative approach and adopted questionnaires from Mathew and Chung (2021) to achieve the objectives. There were two groups of respondents identified for this study. A

sample of 40 Year 5 learners from the local primary schools in the Northern of Selangor, Malaysia, and 40 preservice teachers from a local private university in Selangor, Malaysia, were randomly selected to participate in the data collection process. Two sets of questionnaires were sent out to the participants. For the learners, the questionnaire set out to identify learners' attitudes in using digital educational tools. While for the preservice teachers, the questionnaire aimed to investigate the features that attract teachers to use interactive tools. Before answering the questionnaire, participants were required to agree to the consent form provided. The questionnaire was distributed via Google Form through social communication media. Using online survey tools as a medium of standard data collection instruments has become an alternative to face-to-face data collection strategy in today's research.

5. Findings

5.1. Features that attract teachers to use interactive tools

Figure 1 shows the results for the features that attract preservice teachers to use interactive tools. Respondents are free to choose their top five reasons for using the interactive tools, and they may also add to the list if their reasons are not present. The most favourable interactive tools feature was 'easy to use' with 90.9%, followed by 'interesting' at 79.5%. Next, 'easy to access' with 70.5%, followed by 'flexible' at 65.9% and 'free' at 63.6%, same as 'effective.' 'engaging' had 61.4%, 'visually appealing' at 29.5%, and 'design' at 20.5%. 'scoreboard,' 'the avatar character' and 'leaderboard' all at 15.9%. 'feedback' is at 13.6%, followed by 'puzzle' at 11.4%. Lastly, 'provide a non-threatening lesson,' 'fun,' 'interactive and communication,' 'games' are the lowest at 2.3%.
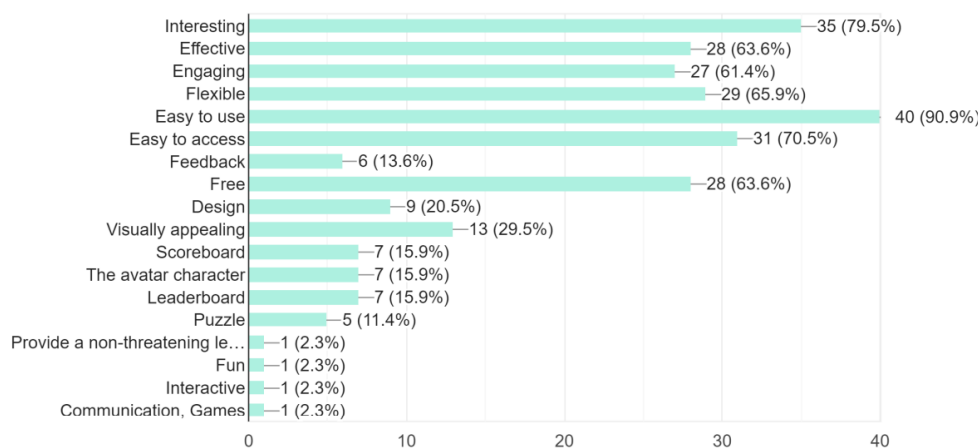
Figure 1. Features that attract teachers to use interactive tools

5.2. The attitude of learners in using digital educational tools

Table 1 shows the attitude of learners in using interactive tools while learning online. 34% strongly agree that they feel isolated during online learning and 39.5% strongly agree that they are demotivated during online classes. 36.4% agree that they do not feel confident to answer questions during

165

online classes. Lastly, 47.7% strongly disagree that they cannot understand what is being taught during online learning and 63.6% strongly disagree that they dislike learning online.

Table 1. The attitude of learners in using digital educational tools

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel isolated during online learning.	34%	25%	27.3%	6.8%	6.8%
I feel demotivated during online class.	39.5%	34%	27.3%	6.8%	2.3%
I do not feel confident to answer question during online class.	18.2%	36.4%	27.3%	9%	9%
I am unable to understand what is being taught during online learning.	2.3%	6.8%	13.6%	29.5%	47.7%
I dislike learning online.	0%	0%	1.4%	25%	63.6%

6. Discussion

When individuals wish to use a specific item, they must be convinced that it can benefit their task. One of those benefits would be having to be able to use it easily. This study proved that ease of use plays an essential role in the type of digital educational tools teachers use in their lessons (Gao et al., 2020). Other than being easy to use, the tools should be interesting to attract learners. Having tools that can engage learners in the learning process provides satisfactory outcomes (Nácher et al., 2021).

As the pandemic grows unstable, learners have to study online independently to keep their social distance. When learners go online, they are easily demotivated due to the lack of physical connectivity with their peers (Coman et al., 2020). Hence teachers should create a learning environment where learners are able to work together where they do not feel as disconnected as they are now. Learners were also forced to be thrown into this relatively new learning style; hence they were not confident to share their thoughts and answers with the class and had not grasped the practice of being taught online. This may be due to teachers' lack of training to have a more open relationship with their learners (Sepulveda-Escobar & Morrison, 2020). When learners feel safe in their learning environment, they can naturally communicate openly during the teaching and learning process.

7. Conclusion

In conclusion, this study determined the features that attract teachers to interactive tools and provide insight into learners' online learning attitudes. Teachers are more likely to choose digital educational tools that are easy to use and interesting to the learners. Teachers are also expected to provide a stress-free learning environment where learners can open up to communicate freely during lessons.

Acknowledgments

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