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# ADAPTATION OF SOCRATIVE APPLICATION AS ONLINE TEACHING PLATFORM DURING THE COVID-19 PANDEMIC

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## ABSTRACT

**Purpose:** This study aimed to investigate university students' attitude towards Socrative as an online teaching tool and a student smart response system (SRS) in real-time during the Covid-19 school closure at Walailak University (WU). The COVID-19 pandemic has prevented WU lecturers from engaging in face-to-face learning. Socrative, Microsoft Team, and other e-learning programs were among the various remote teaching applications that were used during this period. However, because of the alleged high levels of reliability and effectiveness, the researcher concentrated on a proprietary e-learning application, Socrative.

**Method:** This study used a mixed method of quantitative and qualitative research design to investigate the sampled population of (n=90) second-year undergraduate students' attitudes toward using Socrative as an online teaching tool and real-time feedback after having used the aforementioned application for three months during the COVID-19) pandemic.

**Results:** The findings revealed that Socrative is indeed a useful tool that educators can use to improve digital learning outcomes such as learning engagement. The results also revealed that gender did not have any statistically significant influence on students' attitudes towards the use of Socrative applications for online teaching.

**Conclusion:** According to the findings, Socrative application appears to be suitable for remote teaching and learning during the covid-19 pandemic in this digital era because of the most important characteristics of Socrative application, such as its ease of use, straightforwardness, minimal hardware requirements, and a long list of useful features.

**Keywords:** Socrative application, COVID-19 pandemic, e-learning programmes, aforementioned application, remote teaching.

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## Introduction

The Covid-19 pandemic has created a crisis in many areas of life with education being the most affected. Stay-at-home guidelines, physical distancing, movement restrictions, and total lockdowns have begun to affect educational institutions' ability to operate optimally (Pak, et al., 2020) (Nicola, et al., 2020) (Seetharaman, 2020).

Many institutions now use online platforms like Socrative, Microsoft Team, and other e-learning programmes as their primary means of engaging with students and carrying out performance evaluations and assessments as a result of these challenges in delivery models (Ahmed, Allaf, & Elghazaly, 2020)

Despite the difficulties, Socratives provide a type of innovation that is helpful in the COVID-19

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crisis to promote learning (Nawalaniec, 2015). But it would be foolish to use technology without taking user attitudes into account. The perceived ease of use of the proposed technology and the individual's perception of the technology's utility to them are the two key factors that significantly affect their intention to adopt new technologies, according to insights from the Technology Acceptance Model (Charness & Boot, 2015; Portz, et al., 2019).

Professionals in the field of education are left with no choice but to adapt to a new landscape that favors the use of online learning technologies. Educators initially found it difficult to meet their instructional goals using online learning platforms. However, this challenge will be overcome slowly as more innovations are introduced. Eventually, educators will be able to devise ways to teach online more quickly and efficiently, without compromising their target outcomes. For the most part, higher education institutions have demonstrated an excellent job in transitioning from a largely face-to-face teaching environment to a largely online-based one. While, there is a lack of knowledge regarding Socratives as a student smart response system, which affects educators' opinions and attitudes. Additionally, its application in relation to Covid-19 has not been researched. To assess the appropriateness of SRS application during the Covid-19 epidemic, certain informational gaps must be filled.

Educational Technology and consideration of Socratic Application as the online learning and teaching tool. The inclusion of ICT in school curricula has been a fairly common development in many Southeast Asian countries such as Thailand. Previous studies support the idea that the inclusion of ICT in school curricula can help educational institutions meet their mystification, internationalization, diversification, and marketization goals (Aryadoust & Lashkary, 2009). Another important impact of ICT integration is cost optimization (Charness & Boot, 2015). These cost savings are eventually passed on to consumers, leading to more affordable and accessible higher education services (Council of Europe, n.d.). This, in turn, led to an overall

annual increase in enrollment (Luu & Freeman, 2011).

Educational institutions with a fully integrated ICT system in their operations also benefit from a higher level of student mobility, a more conducive environment for international students, and significant improvements in teaching and learning outcomes (Oliver, 2001).

Technology utilisation is currently regarded as being a crucial component of many institutions' 21st century modernization initiatives, which aim to modernise the ways in which they support teaching and learning activities (Luu & Freeman, 2011). With the use of ICT, educational institutions may advance and become more competitive in terms of outcomes like student engagement and academic success (Roblver & Wiencke, 2003). Many popular learning techniques have been virtualized. The growth of course management programmes like Blackboard and WebCT provides proof for this.. These applications can be used to digitalize the process of delivering content, sharing media, and other information with both students and teachers (Boettcher, 2003; Oliver, 2001).

This revolution was not unique to the field of education. Other industries also benefit from increased use of and reliance on ICTs (Ciftci, Taskaya, & Alemdar, 2013). Top educational institutions, such as ivy league universities, began to transition towards ICT-based educational frameworks earlier than other non-elite educational institutions. Many now associate the ability to offer courses and curricula that are heavy on ICT and other innovations with the overall quality of the educational services offered by an educational institution and for good reasons.

One factor that has received considerable attention in the ongoing ICT revolution in the field of education is learner engagement. Terrion and Aceti (2012) suggest that learners' engagement levels tend to be lower in online learning environments. Learning motivation may also become lower in today's ICT-dominated classrooms as students become exposed to a wider range

An example is the integration of smartphone use in the classroom. Many believe that smartphone use in the classroom (for educational purposes) can lead to improvement in individual and group learning outcomes (Duncan, Hoekstra, & Wilcox, 2012; Kolb, 2011). This is true only online, as smartphones enable students to access any type of content related to their lessons. The use of smartphones for online learning is a useful and practical choice. The only problem is that smartphones must be paired with appropriate applications or software for students and teachers to be capable of reaping these benefits (Balta & Duran, 2015). Among the various online learning applications currently available, Socrative is one of the best ones.

Socratives have, so far, been a popular choice among educators. It doubles as a cloud-based audience-response system. The audience in this particular use case scenario was a student. For example, in 2013, the company behind Socrative breached a 450,000 mark in terms of the number of registered members. The company had an average of approximately 40,000 new user registrations per month. These numbers are stellar, at least for startups, especially considering that Socratives were released into the market in 2011 (two years ago). Socratives have both free and paid planning options. The core feature of Socrative is that it allows educators to obtain real-time student responses. Such responses can occur in several ways. Educators, for example, may select true or false, multiple-choice, and poll-based assessments and responses.

Smart system for students as Socrative, must be paired with a device that can be connected to the internet. The most common choices are notebook computers, tablet computers, and smartphones. Users must register an account in the Socrative database that can be accessed at [www.socrative.com](http://www.socrative.com). This is also true for educators and students. Front-end pages and features differ depending on the user category to which someone

belongs. Educators, for example, would have access to educator-specific pages and features; the same principle applies to student accounts.

Educators enjoy a greater degree of control in terms of access to social content and features; students, on the other hand, only have to download the Socrative application on their preferred computers or mobile devices. Media files and screen-sharing options were available to both educators and students. These features can be used by individuals from both groups to communicate with one another.

Socratives also offer a set of features that educators can use when they conduct a quiz or any other academic activity. Educators can create a set of questions that students can answer using various response methods (e.g., multiple-choice, true or false, or essay-type questions). Students can also provide their educators with real-time feedback on the questions so that immediate corrections can be made.

In the past, educators used clickers and electronic devices to enable users to send and receive real-time feedback. One problem with these devices and technologies is that they lack proper integration with the current generation of online learning platforms (Caldwell, 2007). Some concrete examples include the Poll Everywhere and Go Soapbox. A major drawback of these two commercial websites is that they require upfront payments and offer few free trials and setups, unlike Socrative, which has a free version.

Socrative users only require an Internet connection and an Internet-connectable device. This greatly minimizes users' exposure to distractions, which can in turn affect their online learning outcomes (Matthew, 2012). The effortlessness of using the service has also been a major selling point among major educational institutions, as well as educators and students alike (Homme, Asay, & Morgenstem, 2009).

This study examines second-year undergraduate students' attitudes and perceptions about using Socrative as an after studying online for three months during the Covid-19-caused school shutdown, and SRS. Participants' perceptions of the impact of Socrative use on academic performance were also included in the theoretical framework.

For this, the researcher has come up with two research questions:

RQ1: What are the WU lecturers and students' perceptions of Socratives and their use as online learning tools?

RQ2: Does gender have a significant impact on Wu students' perceptions of the Socrative and its use as an online learning too.

## 2. RESEARCH METHODOLOGY

### **Informants**

Second-year undergraduate students enrolled at Walailak University were recruited as participants at the time of the study. WU administrators have put in place a strictly online teaching-only policy in the past three months (at least) in response to Covid-19 pandemic-induced school closures. At the time of the study, there were approximately 2,000 2nd year WU undergraduate students. A total of 125 students were included in this study. Of the 125 students who were able to submit a completed survey questionnaire, 35 were eliminated because they posted the same answers to all the survey questions, meaning that they did not answer the survey questions conscientiously.

This left the researcher with only 90 participants. 37 students were male and the remaining 53 were female. All of them were of legal age, specifically between 20 and 22 years old. Students from different majors were included in this study. These majors include biotechnology, ASEAN studies, animal science, accountancy, electrical engineering, digital information, and computer engineering. The respondents were also learning English at the WU. The respondents' English competency levels varied from C2 to A1, in accordance with the Common European Framework of Reference for Languages.

Score Range	Level	Number	Percentage
70-100	Advanced	27	30%
56-69	Intermediate	19	21%
40-55	Beginner	27	30%
<55	Unidentified	17	19%

Figure 1 Informants' English Proficiency Levels.

### **Research Instrument**

Dervan's (2014) study was used as a survey instrument. In Dervan's (2014), the survey instrument was validated using a specified group of students as the respondents as well. Reliability tests were conducted on the same sample population. Cronbach's alpha was used as the basis for the reliability tests. The results of reliability testing yielded a Cronbach's alpha coefficient of 0.77. This indicates that the survey instrument's level of consistency is sufficiently high to be used in empirical studies.

The survey questionnaire was used to collect data from WU students regarding their perceptions about using Socrative as an online teaching tool for a 3-month school closure period, as a result of the Covid-19 pandemic. The questionnaire consisted of six questions. The first two questions focused on the collection of demographic information, and the remaining four questions examined respondents' perceptions of the online teaching school.

The first question featured two options, yes or no. Only individuals who answered yes to the first question were asked to continue with the remaining questions. The second question contained six sub-questions that were answerable using a 4-point Likert scale. The third item featured choices on a 5-point Likert scale. All the respondents had to choose the best answer that reflected their perception of the Socrative as an online teaching school.

### **Data Collection**

It is worth reiterating that the primary objective of the survey was to evaluate the students' overall experience in using Socrative

as an online teaching school during the Covid-19 pandemic-included school closures. The survey questionnaires were distributed through physical printouts (physical) and Facebook. In total, 90 students and nine instructors successfully completed the survey, along with nine instructors. Most participants answered the survey forms online due to the lockdown procedures that were still in place at the time of the study's implementation. The printout option was only used by participants who could not access the online options.

### 3. Adaptation of Socrative Application at Walailak College When schools were closed because to COVID-19

Most English language teachers at Walailak University used to deliver their materials to their students using Pacing, a platform designed for online teaching during Covid-19 pandemic-induced school closures. The instructors created an online quiz bank using Moodle, which is an online learning platform.

The use of Socrative as an online teaching tool is a new development at the Walailak University. This is particularly true of English-language lecturers. However, these trends favor Socrative over other online learning platforms from previous generations. According to educators at WU, the biggest strengths of Socrative are its ease of use, surprisingly high level of engagement from the perspective of educators and their students, and most importantly, its user-friendliness. The straightforward process of creating and administering quizzes is also an attractive feature that makes Socrative popular among the WU English lecturers.

Socratives only require users to have a stable Internet connection and an Internet-connectible device. This minimal hardware and networking requirement also greatly reduces the need for educators and their students to spend more time just to start using an online learning platform. Students can even use their smartphones as their primary device when using Socratives. Other online learning platforms do not have this feature, because full feature sets are usually

reserved for laptop and desktop computer-based users.

Overall, educators agree that Socrative is the best option currently available at WU for off-campus classes. They also believed that the continuous use of socratives could lead to improvement in students' learning outcomes. Below is a more specific list of some WU English instructors' comments on the use of Socratives.

James has, so far, used Socrative when conducting his classes at WU for the past three months. James reported that Socrative is an innovative, responsive, and interactive tool that allows the educators to conduct off-campus classes, and at the same time, it also allows the students to attend those classes. According to James, the seamlessness of the entire off-campus handling and attendance experience makes Socrative popular among WU educators.

Mary has three months of experience in using Socratives. Mary found Socrative effective in enabling students to access different course materials, regardless of their type of gadget. For example, students who do not have laptops or high-performance desktop computers can use their smartphones to log into Socrative Accounts. The same is true for the teachers. The only thing that is needed is a stable internet connection. Almost everyone of this day and age has a smartphone; therefore, there is no reason for a student to miss a single off-campus class.

Vivian had been teaching at the WU for one year at the time of the study's implementation. So far, her three months of experience in using Socrative as an online teaching school has been positive. Vivian described the Socrative as a modern, time-saving, and nature-friendly online teaching system that ticks all boxes, meaning that everything that online teachers need to conduct their lectures is already present.

### 3. Findings

According to the research questions

The researchers divided the survey findings based on their relevance to two research questions.

### 3.1.1. RQ1:

What are the WU students' perceptions about Socrative and its use as an online learning tool?

RQ1 focuses on students' perceptions (or attitudes) of Socratives and their use in online learning. Items 1–4 are directly related to specific items in the survey questionnaire.

The first item in the survey questionnaire asked the students the following question: 'Do you think using an in-class student response system such as Socrative was helpful to your learning?'

All the 90 participants were able to answer this question. In terms of tally, 86% answered yes and 14% answered no. Interestingly, the findings also indicated that a larger percentage of female respondents answered yes to the first survey item than did male respondents. Thus, women generally have a more positive perception of Socrative use as an online learning tool.

The second item in the survey questionnaire asked the students the following question: 'Thinking about how Socrative has helped your learning. Please respond to each statement below: ". The Figure below shows a graphical representation of respondents' answers to the sub-questions of the second item of the survey questionnaire.

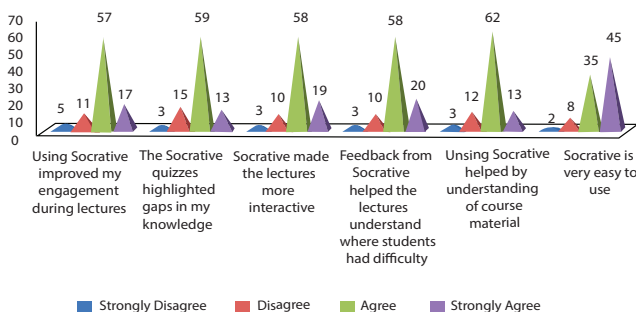


Figure 2 Survey Question 2 Responses

There were only four possible answers to the questions on Survey Questionnaire Item

2: strongly disagree, disagree, agree, and strongly agree. Referring to the data in Figure 2, it can be said that the WU students surveyed thus far have a positive perception (overall) of the use of Socrative as an online learning tool as well as a student smart response system. This was evidenced by the higher number of students who answered the questions positively (agree or strongly agree).

The third item in the survey questionnaire asked the students the question "Based on your experience using Socrative this semester and thinking about the next semester, please indicate your view".

Results of question 3 on the use of Socrative

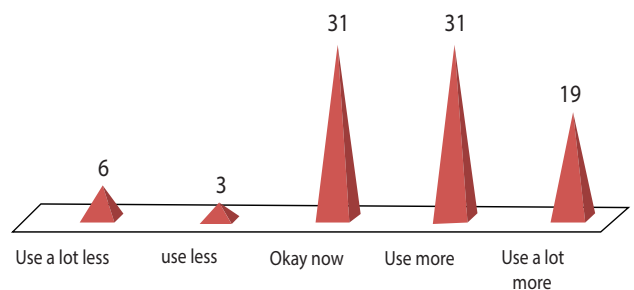


Figure 3 Results of Question 3

As shown in Figure 3, there were only five possible choices for Survey Questionnaire Item 3. The overall score computed here was 3.6 out of a maximum score of 5. This indicates that students generally have a positive attitude towards Socratives in terms of their experience of using them this semester.

The fourth survey questionnaire item asked the respondents, "Do you think there is a disadvantage in using a feedback system such as Socrative? The majority of respondents said that there was no disadvantage in using Socrative: specifically, 79% (71 respondents), whereas only 19% (17) said otherwise.

### 3.1.2. RQ2:

Does gender have a statistically significant influence over the WU

students' perceptions about Socrative and its use as an online learning tool?

The gender-based analysis of the four survey questionnaire items indicated that gender had a statistically significant influence on WU students' perceptions of the Socrative and its use as an online learning tool. In the results from survey questionnaire item 4, for example, it was revealed that female informants were more likely to answer the question, as evidenced by the 89% (51) female respondents who said they did not see any disadvantage in using a feedback system such as Socrative. This is higher than the 68% (25) of male respondents who said the same.

Using Socrative	Informants	Response
It is easy or (straightforward) to use (Yes)	86%	
Improved my engagement (Agree/Strongly Agree)	79%	
Use it more ( or naturally more ) next semester	55%	
No perceived disadvantages	79%	

Figure 4 Summary of Survey Responses on the use of Socrative'

Levene's test for Equality of variance s						
sig.		t	df	Mean	Std. Deviation	Std. Error Mean
.021	.894	-5.670	44	-.84444	.99899	.14892

Figure 5 T-Test Results

The t-test results male and female respondents' replies did not differ significantly (p-value 0.05). The average score obtained for male students was 4.13; the number for female students was 4.97.

## 4.DISCUSSIONS AND CONCLUSIONS

In the current study, the researcher investigated students' and educators' attitudes towards the use of Socrative as a result of the Covid-19 pandemic-induced shutdown, as an internet teaching tool and a clever reaction from students. According to the early analysis of the relevant literature, using online learning tools like Socrative will be the newest big thing in the world of education. As the COVID-19 pandemic has increased, an increasing number of educational institutions and educators have been forced to adapt to the new environment. This is where online

learning platforms, such as Socratives, will shine(-Georgiev & Smrikarov, 2004; Manuguerra & Petocz, 2011; Kolb, 2011). Coca and Slisko's (2013) study concluded that the combination of smartphones and Socrative is more than enough to accommodate the online learning needs of students, including those studying highly technical subjects such as physics, biology, and molecular biology. This stems from the ability of the Socrative to maintain a high level of motivation and engagement during sessions (Liu & Taylor, 2013).

This finding is supported by Awedh et al. (2015), although their focus was on the effects of Socratives and smartphones on students enrolled in computer architecture courses. Awedh et al. (2015) attributed the success of Socratives and smartphones to their ability to promote collaborative learning during classroom sessions. Awedh et al. (2015) added that teachers and students can use various online learning tools. For example, clickers have become popular owing to their accessibility. However, clickers became practically obsolete when newer and more innovative software solutions such as Socrative were released into the market. Focusing on Socrative (alone), what makes it effective is its core set of functions as a smart student response system (SRS). This feature set gives teachers the option of using their creativity to facilitate online classroom sessions. This also enabled students to participate more actively in the session, and other online classroom management applications could not be provided.

The results of the survey conducted among WU educators and students in this study showed that the participants generally had a positive (overall) attitude towards Socrative and its use as an online learning platform. According to the participants, the most important characteristics of Socrative are simple for using straight forward, long term features and minimal requirement of hardware tools. These are the reasons why Wu educators and students have grown to love Socratives. The results of the statistical analyses also showed a significant difference between male and female participants' responses to the

#### 4.1 Implications and Suggestion for Further Studies

The comes about and discoveries of this think about have critical suggestions for both instructional method and inquire about. Educational hones can be revolutionized in the event that policymakers and experts within the field begin to alter their hones based on the comes about and discoveries of this investigate. The field of research also stands to benefit from the use of online learning platforms such as online research platforms.

Future studies should consider using larger sample sizes. This would have had a positive effect on the external validity and reliability of the studies. Another recommendation is the use of a more diverse population. This can be achieved by surveying more than one educational institution.

Overall, ICT's role in the field of education and research is only going to increase as society becomes more modern and globalized. Developing countries in the ASEAN region, such as Malaysia, the Philippines, and Brunei, stand to benefit significantly from ICT integration in the aforementioned fields.

#### Declaration

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4.Consent of participants Informed consent was attained from all contributors encompassed in the research study

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