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### Future of Virtual Vocal Lessons as a Customary Virtual Tutorial with the Students of Universiti Teknologi MARA

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#### Abstract

The use of ICT is a new norm in the post-pandemic environment, and its functions have not been limited to entertainment, but have expanded to business, administration, banking, and especially education widely since 2020, when face-to-face classes were restricted due to the pandemic. This research study aims to investigate the effectiveness of using a virtual platform in vocal lessons and as supplementary customary tutorials for the University Teknologi MARA, Shah Alam students. The research is carried out quantitatively via a Google Forms questionnaire. The result shows a positive impact on the vocal lessons given.

Keywords: Customary; Tutorial; Vocal Lessons; Virtual

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#### 1.0 Introduction

Information and communication technologies (ICT) have recently been utilised as a virtual education platform in most curricular regions. Various tertiary institutions are currently exploring a comprehensive approach with ICT as a supplementary element in education post-pandemic. Music education is no exception, marking a significant positive impact on the modern classroom with ICT equipment. The benefits of using ICT achieved three main objectives: improved lesson organisation, empowered distance learning, and supplemented customary learning. When appropriately integrated into music education, ICT offers numerous advantages to both students and educators. The music students show improvement as innovative, customary learning is incorporated into their lessons.

On the other hand, music educators require the skills and methods needed to run practical virtual lessons. According to Himonides (2016), technology has taken over in the classroom, from improving performance skills to facilitating communication between educators and students and working on their customary teaching-learning strategy. The significance of studies as such is to find out the impact of ICTs in virtual learning platforms and the potential development of customary learning as a supplementary virtual tutorial in vocal lessons.

#### 1.1 Statement of Problem

The COVID-19 pandemic, from early 2020 to late 2022, has left educators and students with no option but virtual lessons. According to Michigan State University's Quello Centre, slow internet connections or limited home access in rural areas can cause students to fall

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behind academically (Baurer, 2022). Internet stability has become a significant issue compared to that in an urban area with smooth internet connections. This has become part of the question of whether ICTs and virtual learning platforms should continue to develop as supplementary tools for vocal lessons in the post-pandemic era. If virtual instruments are reinforced, the fairness issue between those with and without stable internet will become significant.

On the other hand, the implementation of virtual platforms like Zoom and VOOV is improving their service, especially in reducing latency. This is because, at some point, both parties from the other end of the calls could not synchronise their singing due to the latency. The slight delay prevents the vocal tutors and the students from singing together. The software may mute one participant in the "conversation" to avoid confusion. That will cause a certain level of cutoff in the melody sung by the teachers or students, and will affect the quality of the lesson. In this case, only a selective virtual platform that avoids latency and synchronisation may serve as a viable tool for post-pandemic-era vocal lessons. Not every ICT software is suitable for development as a supplementary tutorial for customary learning.

The difficulty with using ICT is that vocal students will need to justify how much integration they would require as additional virtual learning tools. In addition, overusing and relying on the convenience of ICT may lead to less creativity in the creative process. For example, YouTube is a widely used source of audio and video references. Still, without academic regard, students may not know, stylistically, in vocal, which videos are reliable sources for reference. Hence, the vocal tutors may have to educate the student on recognising reliable resources to maximise the benefit of incorporating ICT supplementary teaching tools.

### 1.2 Objectives of the Study

The objectives of the study are:

1. To evaluate the adaptability of Universiti Teknologi MARA vocal students to virtual vocal lessons supplemented by ICT tools like YouTube and Spotify.
2. To assess students' agreement on the effectiveness of virtual platforms like Google Classroom in enhancing vocal lesson outcomes.
3. To examine consumer preferences in the use of audio-visual ICT tools and virtual platforms as auxiliary elements to traditional, face-to-face vocal training.
4. To understand the impact of internet connectivity and stability on the effectiveness of virtual vocal lessons.

### 1.3 Objectives of the Study

1. How adaptable are UiTM vocal students to integrating ICT tools such as YouTube and Spotify into their learning processes?
2. To what extent do students agree that virtual platforms like Google Classroom are effective in enhancing the quality of vocal lessons?
3. What are the preferences of vocal students in utilising audio-visual ICT tools and virtual platforms as supplementary elements to traditional lessons?
4. How does internet connectivity affect students' experiences and outcomes in virtual vocal lessons?

### 1.4 Significance of Study

The research examines whether the configuration of ICTs and virtual learning platforms is effective for vocal students in the post-pandemic era. Although there are many potential ICT tools, based on the primary platform used during the pandemic at Universiti Teknologi MARA (UiTM), the ICT tools mentioned mainly focus on YouTube, Spotify, and Google Classroom, which do not require a financial burden and are generally accessible to students. It is essential to determine whether virtual learning is effective for vocal students, as the fast-paced global development opens up a boundless horizon in which students can reach out internationally for tutorials with various masters and gurus around the globe. It is also crucial for the resident vocal tutors to customise learning and supervision of progress through the virtual platform (Google Classroom). They can give a tutorial on a non-contact version, yet effectively provide guidance, material, and interaction customarily to the strengths and weaknesses of a student

### 1.5 Scope of Study

The study aims for tertiary vocal students with sufficient discipline and knowledge in using ICT and virtual platforms to assist their vocal studies. This study was conducted in UiTM Shah Alam and does not involve other universities. However, the limitation of the study suggests that, for a more conclusive conclusion, more institutions should be involved in future studies. It is also recommended that, for relevant future research, internet access should not be a hindering factor for the suggested virtual vocal lessons.

## 2.0 Literature Review

ICT alone is a broad idea, an innovation that focuses on mechanical data in education, particularly by utilising gadgets and applications that support communication. Engaging with ICT as an instrument for unsupervised self-learning may raise scholarly concerns. Though ICT is currently an empowering agent in many ways, the effectiveness of vocal lessons, widely known for their required interaction and possibly ensemble singing (synchronisation), has yet to be widely explored. Hence, instead of solely relying on the virtual platform, engaging them as supplementary teaching tools is more feasible.

### 2.1 ICT in Teaching and Learning Framework

Based on the study in this era of data and correspondence advances, data and correspondence advances are vital to the educational system (Ahmad, 2011). The advancement of technology has assumed control over the world's inescapability. The dominance of ICT is evident in every aspect of modern life, from home appliances to communication tools. ICT integrated into the Teaching and Learning (T&L) framework of tertiary education is presumably aligned with the university syllabus. Distance learning is now common in the post-pandemic era, whether it is an integrated or a complete program offered by universities. If ICT in T&L is feasible, it will reduce the burden from many aspects. The opportunity for a worldwide learning platform has become possible, enabling intellectuals from around the globe to provide supplementary education (workshops, masterclasses, etc.) without having to travel. In addition, it is cost-saving and yet the gate of knowledge will not be restricted within the university itself. It invites intellectual exchange beyond borders.

### 2.2 Virtual Vocal Lesson

The use of ICT has turned intellectual exchange into a global highway of innovation. The integration of virtual platforms into vocal learning did not begin during the pandemic. Many vocal learners begin using YouTube and Spotify as sources for interpretation, musicality, and vocal technique. Published records were the primary preference in the 1990s to 2000s, when access to YouTube and Spotify was limited or did not yet exist. With the published records, the discography is much easier to recognise and is usually of high quality and widely recognised. When YouTube and Spotify are available, the public can share and upload their creativity to the platform. These phenomena allegedly cause vocal students to be unsure which audio-visual materials are academically recognised and which are of an entertainment standard. Though ICT provides convenience and reciprocal help for instructors and students, the knowledge of vocal performance practice and historically informed performance needs to be assumed well-educated as part of the university modules (Jorge et al., 2003).

### 2.3 Customary Learning for Students

It is known that students are with further progress in learning. The diversity of preferred learning styles is mainly among visual, auditory, and kinesthetic learners. (Fan et al., 2016). Whether vocal lessons are conducted on a virtual platform, traditional learning is essential for addressing the strengths and weaknesses of vocal students. The specification comes from the distinct voice type, timbre, and tessitura of each individual, and, given the repertoire, the approach to technique and vocalisation should also be customised. It is allegedly known that vocal quality is like a thumbprint; no two voices are identical. With various vocal approaches, one potential limitation of a vocal teacher is knowing their voice type. Carefully and adequately selected online material can serve as a convenient reference for students and tutors. A vocal tutor is a mentor who, in the long run, guides students in vocal health and development, with the virtual learning platform and customary learning in mind. With consultation with particular experts made possible at a cost-saving rate, this approach is ideal for students.

## 3.0 Methodology

This study employs a quantitative approach. The research was carried out with a descriptive process involving collecting data through Google Forms and analysing numeric data with SPSS. In conducting the descriptive study, the researchers have concentrated on developing multiple measures that focus on specific ICT tools and potential contributions of ICT towards the research aims. The steps of conducting the descriptive research are displayed in Figure 1.

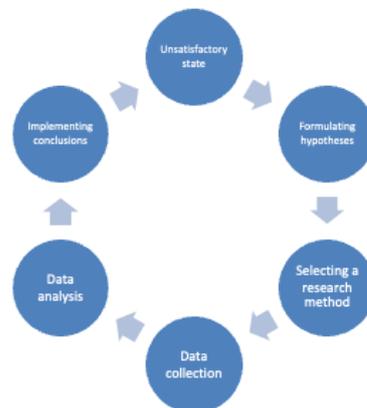


Fig. 1: Descriptive research process.

### 3.1 Sampling Method

A purposive sampling method is selected for the data collection. It involves the judgment of a specialist in choosing cases or cases for a particular reason (Matthew, 1996). In this case, the vocal students of UiTM are the sample selected. Purposive inspection is utilised most frequently when a hard-to-reach population should be estimated. (Becker, 1999). Due to the population of vocal students in UiTM, 30 participants are assumed to be sufficient to approximate a normal distribution with the Central Limit Theorem.

### 3.2 Questionnaires

The hypothesis is drawn as certain levels of involvement of ICT and virtual platforms in the vocal lesson, along with face-to-face vocal lessons, are linked to successful learning and teaching, making this a critical question to investigate in the suggested study. There has never been any research conducted on the UiTM and any local Malaysian universities on having an online platform as a potential customary learning tool for vocal lessons specifically. This encourages the researcher to conduct a pioneering study regarding the possible future of customary virtual tutorials as an auxiliary instrument to vocal lessons.

The study used quantitative techniques, including surveys but not interviews with the vocal students of UiTM (diploma to undergraduate), who were reached out to by purposive sampling for sending the Google Form to the participants. Using purposive sampling, we could specify our questionnaire to vocal lessons-related issues in our analysis. Transcripts of questionnaires were subjected to quantitative analysis. With permission in hand from the ethics approval from UiTM, we sent out questionnaires to collect demographic data, and in the Likert scale, the participants can select their opinion on a variety of issues. The questionnaire includes 30 respondents who attend present face-to-face vocal lessons and experienced virtual learning and hybrid learning with their respective vocal tutors in the pandemic and post-pandemic period. There were a total of 30 complete sets of questionnaires gathered for analysis.

The link to the survey on Google Forms was provided online, along with a brief description of the study and consent form. The inclusion criteria for this study are being a Malaysian studying classical vocals at UiTM. The exclusion criteria for this study are non-classical vocal students, students from the latest intake who did not experience virtual or hybrid online, and face-to-face vocal lessons. The sample comprised 30.0% males and 70.0% females. Participants 20 years old had the highest frequency with 50.0%, 21 with 25.0%, and 22 with 25.0%. The sample's current program of study comprised 60.0% of diploma students and 40.0% of undergraduate students. See Table 1 below for demographic details.

Table 1. Demographic Table

Variables	n (%)
Gender	
Male	9 (30.0)
Female	21(70.0)
Program of Study	
Diploma	18 (60.0)
Undergraduate degree	12 (40.0)

Demographic table (N = 30)

## 4.0 Findings

All continuous data are collected from the questionnaire in Google Forms. The data from the questionnaire consists of questions on the effectiveness of ICT tools (YouTube, Spotify) and the virtual learning platform (Google Classroom) in vocal lessons. All respondents are vocal students at UiTM Shah Alam.

### 4.1 Internet Connection While Using ICT and Virtual Platforms During Vocal Lessons

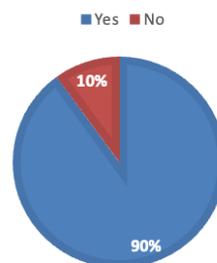


Fig. 2: Reliable internet connection while using ICT in a vocal lesson

Based on the pie chart, 92% of respondents have a reliable internet connection when using YouTube and Spotify for supplementary learning time. Furthermore, only three respondents (10%) were interrupted while using ICT tools. With this data in hand, internet access is not a significant issue for the majority of vocal students at UiTM.

### 4.2 Data Analysis

According to the data collected from the Likert scale, 23.3% of the respondents strongly agree that ICT tools (YouTube and Spotify) enhance the quality of vocal lessons. In comparison, 63.3% agree with the statement. 10% of participants remain neutral in their opinion,

and only one respondent (3.3%) sees otherwise and disagrees that ICT helps the vocal lessons. When asked whether the integrated learning method with a customised learning pace and supervision via Google Classroom is effective, 10% of participants strongly agree, 43% agree, and 26% opt for a neutral opinion. Students who disagree and strongly disagree show the same percentage, up to 10% each.

Further investigation is conducted into which aspects of the ICT tools (YouTube and Spotify) help as supplementary support for vocal lessons. 60% of the students would regard the ICT tools as a note-learning assistant, 70% of the students would use suggested links from the vocal tutor as a reference to study the characteristic and compare the interpretation respectively, and 26% of the students would use the virtual accompaniment tracks on Youtube or Spotify as practice before working with a collaborative pianist or while practicing at home without access to an accompanist or piano playing skill. Only 10% of students use YouTube and Spotify as references for tempo. As many as 50% of students use ICT tools for repertoire exploration by browsing YouTube and Spotify. 80% of respondents report positive learning outcomes when incorporating ICT tools into their vocal lessons. Hence, the usage of YouTube and Spotify positively impacts their experience of vocal lessons.

Regarding the effectiveness of Google Classroom as the customary virtual tutorial platform, 24 participants (80%) report that they would be less likely to explore it. The possible reason is the structure's complexity and the platform's accessibility. Fast messaging apps like WhatsApp and Telegram are considered more effective for communication. The difference between Google Classroom and messaging apps is that Google Classroom has the same function as messaging apps: sharing links to materials. Still, the interaction in messaging apps is perceived to be more organic and less formal. The app's ease of use and responsiveness will allow users to receive immediate notifications on mobile phones, more than Google Classroom. Hence, based on the data collected and the possible reasons provided, Google Classroom did not positively impact the vocal students at UiTM. Thus, it makes a limited contribution to each vocal student's progress as a virtual customary tutorial.

## 5.0 Discussion

The study results show a positive effect of engaging with YouTube and Spotify, and supplementary material for vocal students who take vocal lessons at UiTM, Shah Alam. Further exploration has been made to determine why the students find YouTube and Spotify helpful in their online or hybrid vocal lessons. YouTube and Spotify help the students as note-learning tools, explore the characteristics of given pieces, and compare the different performers' interpretations. It involves many live concert experiences to enable students to see different interpretations by various performers. Nevertheless, virtual platforms like YouTube and Spotify help students at UiTM gain greater access to high-quality content at a reduced cost. Although there is no comparison between the face-to-face experience of a live concert and listening to the recording, it remains a reasonable alternative for vocal students at UiTM. The majority of vocal students are not necessarily equipped with keyboard-playing skills, and access to pianists may not always be convenient. Hence, 26% of students use virtual accompaniment tracks on YouTube or Spotify for practice. Only 10% of students use YouTube and Spotify as references for tempo. As many as 50% of students use ICT tools for repertoire exploration by browsing YouTube and Spotify. Only a low number of students faced internet connection issues. The globalisation of life modernity urges us to continue exploring the possibility of using a virtual platform to create a wall-less learning environment beyond the classroom and to connect with experts in related fields worldwide. However, the suggested platform, Google Classroom, is deemed less effective as a communication tool and a virtual customary tutorial tool.

## 6.0 Conclusion & Recommendations

The contribution of this study to future research is the perceived effectiveness of YouTube and Spotify as supplementary learning and teaching materials in vocal lessons, despite lessons having been resumed face-to-face in full since early 2023. A hybrid teaching method as part of the teaching and learning (T&L) framework will complement the existing system. However, Google Classroom was not perceived as an effective tool for customary learning as of this research. It is recommended that related researchers determine the cause and identify a better replacement in terms of effectiveness and feasibility. In short, the suggestion to incorporate ICT tools into vocal lessons is intended to facilitate the transmission of information to vocal students without being bound by factors such as time and location. Hence, follow the pace of fast globalisation and keep up with the era of information explosion.

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## Paper Contribution to the Related Field of Study

This study provides insight into the possibility of more effective vocal lessons in hybrid mode at UiTM. In addition, this study also explores the effectiveness of YouTube, Spotify, and Google Classroom as virtual learning tools.

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