

Skype in the English language

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Abstract

Skype gives students and teachers the opportunity to connect with the outside world without leaving the classroom, and allows them to meet face-to-face with the subjects of their learning or with students from other cultures. Teachers across the world have already arranged many enlightening and unforgettable conferences, demonstrating the extraordinary potential of Skype in the classroom. To examine the level of acceptance of this technology, the UTAUT (Unified theory of acceptance and use of technology) Model is used to infer individual students' technology acceptance by explaining the variants in Behavior Intention (BI). This study is conducted on 56 secondary school students from Kubang Pasu District. The students are all studying the same subject and they are exposed to the application of SKYPE. A set of questionnaire, in the UTAUT Model which was developed by Venkatesh *et al.* (2003) [17], is used to collect data which is then descriptively analyzed by using IBM SPSS Statistics Version 20 and SmartPLS 2.0. The findings of the study show that Performance Expectancy (PE) ($\beta=0.4230, p<0.01$), Social Influence (SI) ($\beta=0.2460, p<0.01$) and Facilitating Conditions (FC) ($\beta=0.1360, p<0.01$) have a positive influence towards 'Behavioral Intention' (BI). The value $R^2 = 0.413$ suggests that 41.3% of the variance in BI can be explained by the extent of PE, EE, SI dan FC. The findings provide evidence that SKYPE is beneficial and effective for the teaching and learning of English. Thus, teachers and learners could tap its potential to encourage and improve the teaching and learning process.

Keywords: SKYPE, English Language, Unified theory of acceptance and use of technology (UTAUT), Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC).

Introduction

In Malaysia, the necessity for communicative competence in English has been growing; stakeholders expect schools to produce more competent speakers of English. Skype as an easy and inexpensive way of communication between people all over the world, open the door to a wide range of activities that can improve student engagement and comprehension. Interacting with people from different cultural and ethnic backgrounds help students understand cultural differences and learn about history and social norms. Skype is great for

students learning a new language. It can connect them to native speakers everywhere in the world and let them fine-tune their foreign language skills Learning becomes more authentic, inspirational, and engaging when it transcends the walls of the classroom. Skype offers an easy way for students and instructors to engage in synchronous communication. Authors were unable to find any research-based data on SKYPE usage in classrooms. Therefore, this study was initiated to explore the acceptance level of SKYPE in instruction, especially in the Malaysian setting.

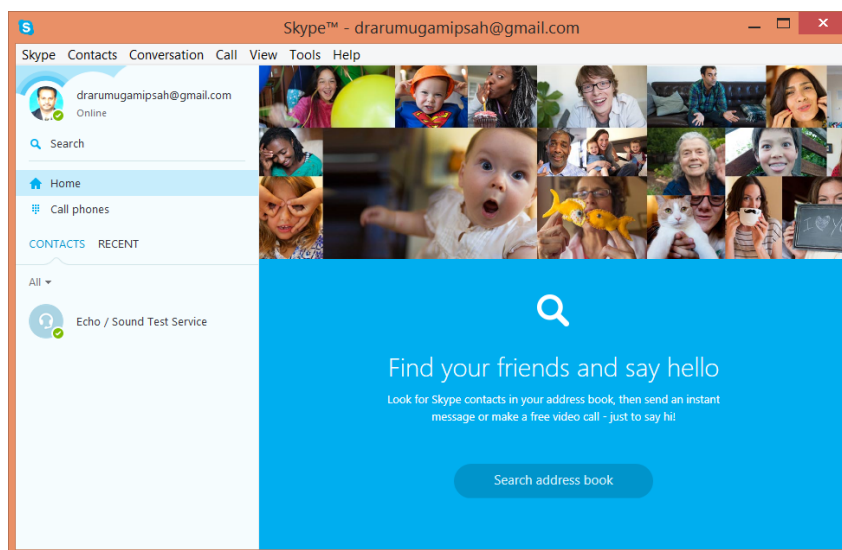


Fig 1: Skype

Literature Review

As we know there are numerous applications offered chat, voice communications, and supporting topographies over the Internet. But with the gorgeous amalgamation of number of users' wide-reaching, buoyed devices, three exchange modes, and high-quality and multi-party video, Skype's exceptional voice and video technology and low charges to call internationally have not been replicated by any related competitors. Google supports real-time conversations; Apple's Face Time; BBM's voice and video simply do not have the comprehensive feature set of Skype. This makes Skype unique. Furthermore Skype has as many as 40 to 86 million users online worldwide concurrently every day; During June 2013 Skype reported that 299 million users had participated in at least one Skype conversation. In 2013 Skype-to-Skype calls represented 36%2 of all international calling minutes according to Telegeography's annual survey (www.telegeography.com). Skype supports three modes of conversations: voice, chat, and video; Assigning and receiving Skype calls are supported on PCs, smartphones, tablets; Skype enabled TVs, and gaming devices such as Xbox One. Calls can be made between any of these platforms. Skype is officially supported in 27 languages and 15 currencies. Skype provides support for calls to and from land line network at low tariffs worldwide. In summary, Skype has become a universal brand name, and even a verb, associated with making free or low cost calls over the Internet. Skype overcomes geographical blockades while augmenting business efficiency. Building collaborative business teams, carrying out job interviews, enhancing customer support operations and supporting remote training and education all contribute to the business case for using Skype (Courtney, 2015) ^[6]. In a language classroom Skype helps students to enhance their language skills through speaking to native speakers (Eaton, 2010) ^[3]. In addition Skype can be used to those students need extra care (Mirtschin, 2008) ^[10] and for interview purposes. For example, students able to conduct life communication with other school teachers by sending Skype feed for all of them to read or watch (Smith, 2009) ^[11]. Indeed Skype can also support students with disabilities, special needs or who are far away to catch up with the class from home (Stephenson, 2009) ^[12]. Students from different geographical locations can be connected via Skype with teachers' assistance. Students can use Skype to do peer teaching and have constructive relationship locally or internationally (Eaton, 2010) ^[3]. This can be done by using collaborative features (free video calls or video conferencing) that available in the Skype itself (Xiao, 2007) ^[19]. For instance if a teacher planning to take his or her class on a field trip, Skype helps him get connected with parents lively to participate in the field trip (virtually). As a result teachers can share students' classroom work regarding the field trip with their parents. On the other hand teachers could communicate with parents via Skype's video conferencing feature regarding issues arise with a student's classroom work (Waters, 2008) ^[20].

Previous discussion clearly highlights the importance of Skype in Education setting. Therefore it is necessary for researchers to measure the acceptance level of Skype among students. The result will be very useful for the curriculum designers to adopt Skype in instruction. Subsequently, researchers adapted the UTAUT model which widely used in the business world to be tested in the field of educational technology.

The UTAUT Model is a technology acceptance model which was developed by Venkatesh *et al.* It describes four main interrelated constructs, that is, "Performance Acceptance, Effort Expectancy, Social Influence, and Facility Conditions. Firstly, Performance Acceptance is defined as how far users believe that using the system can help users to achieve a skill in their work performance (Venkatesh, Morris, Davis, & Davis, 2003) ^[17]. Secondly, Effort Expectancy means the level of ease which is related to the use of the system (Venkatesh *et al.*, 2003) ^[17]. Thirdly, Social Influence deliberates on how far users believe that people who are more important than them think that they (the users) should use the technology (Venkatesh *et al.*, 2003) ^[17]. Finally, Facility Conditions refer to how far technology eases work in the organization and how a user believes that the organization and technical infrastructure that exist can support the use of the technology (Venkatesh *et al.* 2003) ^[17]. This model has been developed through the study and integration of eight other developed research models which have been used, that are, The Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), Model Combining the Technology Acceptance Model and Theory of Planned Behavior (C-TAM-TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT).

The research 'Assessing User Acceptance toward Blog Technology Using the UTAUT Model' conducted by Pardamean and Susanto (2012) ^[14] found that the e-learning media interactive function is able to attract students' interest and attention. They agreed that e-learning media is also suitable for collaboration and shared knowledge. This shows that social factors and the environment or Social Influence (SI) is a strong booster for students to use blogs in their e-commerce learning and teaching. Wong *et al.* (2013) ^[18] conducted a research entitled 'Interactive Whiteboard Acceptance: Applicability of the UTAUT Model to Student Teachers' and found that teachers get involved in the 'Smart Board' technology when they see its value and benefits. This implies that policy makers and curriculum designers have to spell out the advantages of using the technology and organize training sessions on how to use it effectively. The high level of Effort Expectance (EE) will result in high Behavioral Intention (BI) among teachers to use 'Smart Board' technology. According to El-Gayar *et al.* (2011) ^[4], in their study 'Student's Acceptance of Tablet PCs and Implications for Educational Institutional Technology & Society', the main determiner towards the acceptance of PC's Tablet is the students' attitude, followed by Performance Expectancy, (PE), Facilitating Conditions (FC), Effort Expectancy (EE) and Social Influence (SI). A study by Oye *et al.* (2011) ^[13] titled 'A Model of ICT Acceptance and Use for Teachers in Higher Education Institutions' found that among the four constructs in UTAUT, 'Performance Expectancy' (PE) is the most influential factor towards the acceptance and usage of ICT among teachers. 78% of the respondents believed that ICT use in their work will increase their opportunity for promotion. They also claimed that monetary incentive reward is related to the use of ICT. Future prospects to get a better job with a better pay is also based on the use of ICT.

Hypotheses

Research Hypotheses

HO₁: Performance expectancy (PE) has a positive effect towards Behavioral Intention (BI).

HO₂: Effort expectancy (EE) has a positive effect towards Behavioral Intention (BI).

HO₃: Social influences (SI) have a positive effect towards Behavioral Intention (BI).

HO₄: Facility conditions (FC) have a positive effect towards Behavioral Intention (BI).

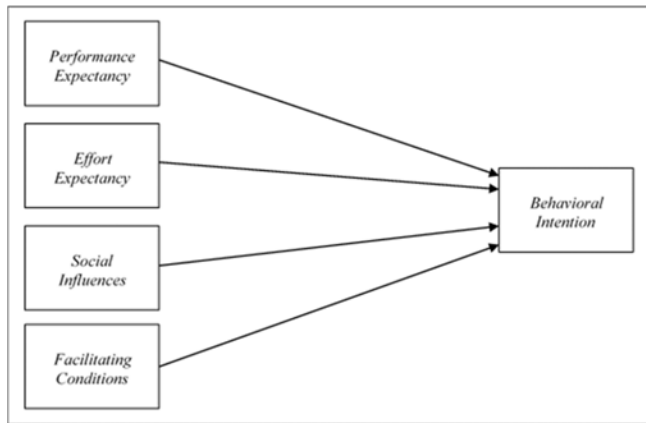


Fig 2: Conceptual Framework of Study

Methodology

This quantitative study uses a 30-item questionnaire developed by Venkatesh *et al.* (2003) [17], which consists of a Likert 1-5 scale from totally disagree (1) to totally agree (5). This questionnaire was translated, validated and distributed to all the participants involved in this study. The sampling for this study consists of 65 secondary school students from the Kubang Pasu District, situated in the northern state of Kedah in Malaysia. These students are exposed to the use of ‘SKYPE’ which is used in the teaching and learning before they evaluate the level of acceptance and use of this system with the use of the UTAUT Model. Each participant is given the questionnaire immediately after they have been exposed to Skype teaching and learning in their course session. The data is then analyzed using IBM SPSS Statistics Version 20 and Smart PLS 2.0.

Findings

Table 1 shows the number of respondents involved of which 26 are male (46.43%) and 30 are female (53.57%). There is a difference of four (7.14%) respondents between the two groups.

Table 1: Gender of Respondents

| Gender | Frequency | Percentage (%) |
|--------|-----------|----------------|
| Male | 26 | 46.43 |
| Female | 30 | 53.57 |
| Total | 56 | 100 |

According to Hair *et al.* (2010) [7], the level of reliability of an instrument is shown when the responses are consistent. Table 2 shows the reliability of each construct. UTAUT Model is reflective in nature and Hair *et al.* (2011) [11] posits that

composite reliability (CR) must exceed 0.7, reliability of items (loadings) must exceed 0.70, convergent validity (AVE) must exceed 0.50 and the square root of discriminant validity AVE for each construct must be higher compared to the correlation with other constructs (Fornell- Larcker, 1981) [5].

Table 2 shows reliability values. Cronbach's alpha (α) above 0.7 indicates a high level of internal consistency for the scale.

Table 2: Cronbach Alpha

| Construct | Cronbach Alpha α |
|------------------------------|-------------------------|
| Performance Expectancy (PE) | 0.77 |
| Effort Expectancy (EE) | 0.69 |
| Social Influence (SI) | 0.80 |
| Facilitating Conditions (FC) | 0.72 |
| Behavioural Intention (BI) | 0.85 |

Convergent Validity

Average Variants Extracted (AVE) is used as general measurement to determine convergent validity for each construct. The AVE value, 0.5 or higher shows that each item completes a part of the item variant. However, an AVE less than 0.5 indicates that, on average, more error remains in the items than the variants explained by the construct.

Table 3: Convergent Validity

| Construct | | Loadings | AVE | CR |
|------------------------------|-----|----------|--------|--------|
| Performance Expectancy (PE) | PE1 | 0.8660 | 0.6203 | 0.9064 |
| | PE2 | 0.7530 | | |
| | PE3 | 0.8130 | | |
| | PE4 | 0.8920 | | |
| | PE5 | 0.6420 | | |
| | PE6 | 0.7320 | | |
| Effort Expectancy (EE) | EE1 | 0.7820 | 0.6766 | 0.9260 |
| | EE2 | 0.8320 | | |
| | EE3 | 0.7420 | | |
| | EE4 | 0.8620 | | |
| | EE5 | 0.8700 | | |
| | EE6 | 0.8400 | | |
| Social Influence (SI) | SI1 | 0.7600 | 0.6103 | 0.8610 |
| | SI2 | 0.9120 | | |
| | SI3 | 0.6830 | | |
| | SI4 | 0.7520 | | |
| Facilitating Conditions (FC) | FC1 | 0.8020 | 0.6902 | 0.9302 |
| | FC2 | 0.8520 | | |
| | FC4 | 0.7620 | | |
| | FC5 | 0.8750 | | |
| | FC6 | 0.8990 | | |
| | FC7 | 0.7860 | | |
| | FC3 | 0.037 | | |
| Behavioural Intention (BI) | BI1 | 0.8460 | 0.6648 | 0.8871 |
| | BI2 | 0.9250 | | |
| | BI3 | 0.7090 | | |
| | BI4 | 0.7650 | | |

From Table 3, it shows that loading value (items) exceeds 0.7 except PE5 and FC4, but PE5 and FC4 are retained because its omission does not increase AVE. However, item FC3 is omitted because the loading is very low (0.037). Convergent validity exists because AVE for every construct exceeds 0.50.

Table 4: Construct Correlation Matrix

| | Performance Expectancy (PE) | Effort Expectancy (EE) | Social Influence (SI) | Facilitating Conditions (FC) | Behavioural Intention (BI) |
|------------------------------|-----------------------------|------------------------|-----------------------|------------------------------|----------------------------|
| Performance Expectancy (PE) | 0.7876 | | | | |
| Effort Expectancy (EE) | 0.5142 | 0.8226 | | | |
| Social Influence (SI) | 0.2177 | 0.6038 | 0.7812 | | |
| Facilitating Conditions (FC) | 0.2135 | 0.5138 | 0.2141 | 0.8308 | |
| Behavioural Intention (BI) | 0.3259 | 0.2171 | 0.2144 | 0.3262 | 0.8154 |

Discriminant Validity

According to Fornell dan Larcker (1981) [5], when the average square root of extracted variants exceeds the correlation value between all the variables, then discriminant validity exists (Table 4). From Table 4, it can be summarized that there exists discriminant validity where BI, AVE² (BOLD) is greater than the correlation indicator in EE, FC, PE and SI.

Based on Table 5, it shows that path coefficient (R²) for each construct (latent variable) that shows difference in the level of correlation can be explained. The result shows Performance

Expectancy (PE) ($\beta=0.4230, p<0.01$), Social Influence (SI) ($\beta=0.2460, p<0.01$) and Facilitating Conditions (FC) ($\beta=0.1360, p<0.01$) have positive influence towards Behavioral Intention (BI). Therefore, HO₁, HO₃ and HO₄ are accepted, because the value $R^2 = 0.413$, which suggest that 41.3% of the variance in BI can be explained by extent of PE, EE, SI dan FC. However, EE ($\beta=0.048, p>0.01$) has no positive effect on BI. Therefore, HO₂ is rejected in the use of SKYPE by the respondents. The findings show that PE, SI and FC have significant relationship with BI.

Table 5: Path Coefficient and Hypotheses Results

| Hypotheses | Relationship | Coefficient (β) | t value | p value | Result |
|-----------------|--------------|-------------------------|---------|---------|----------|
| HO ₁ | PE → BI | 0.4230 | 2.6130 | 0.0116 | Accepted |
| HO ₂ | EE → BI | 0.0480 | 0.2212 | 0.8258 | Rejected |
| HO ₃ | SI → BI | 0.2460 | 3.1250 | 0.0028 | Accepted |
| HO ₄ | FC → BI | 0.1360 | 2.567 | 0.0130 | Accepted |

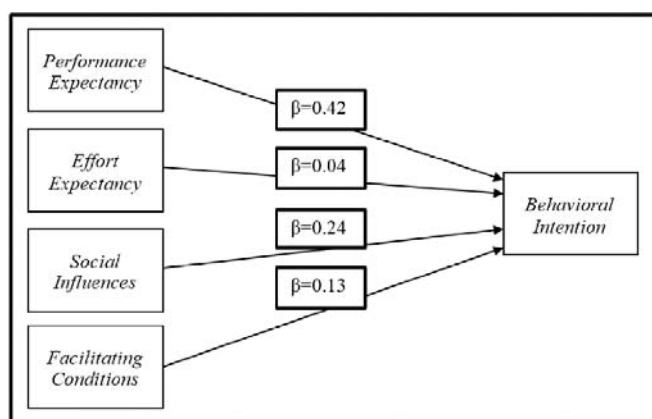


Fig 3: Result of path analysis

Conclusion

The findings of this study are parallel with the findings in the study done by Pardamean & Susanto (2012) [14] who found that the media interactive function of e-learning such as SKYPE can attract the interest and attention of the students. They also agreed that e-learning media is suitable for collaboration and sharing of knowledge. This clearly shows that social and environment factors or SI is the booster for students to use blog in their e-commerce learning. To speed up the implementation of SKYPE in the classroom, encouragement and support from peers is vital. The findings in this study are similar with El-Gayar *et al.* (2011) which showed that the main determiner of Tablet PCs acceptance among students is the students' attitude followed by PE, FC, EE and SI. However, the result of this study is dissimilar in terms of PE influence in the UTAUT Model which can be seen in the study by Alfonso *et al.* (2012) [1]. The introduction of Skype into the classroom poses many challenges. Teachers have to overcome many barriers to make

it possible for their students to enjoy Skype in the classroom". However, further research needs to be done with regards to time allotted for the students to engage with SKYPE and also preparatory computer skills among the students to get a better picture of the acceptance of SKYPE among secondary school students, especially in predominantly rural schools such as those in the Kubang Pasu District.

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