EXPLORING ESL TEACHERS' ACCEPTANCE OF THE USE OF CIDS IN ENHANCING THE PROFESSIONAL LEARNING COMMUNITY

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Abstract - Globalisation demands students to be competitive. Hence, teachers now bear the responsibilities of ensuring that their students can compete in the challenging world through the implementation of 21st Century learning pedagogy and Higher Order Thinking Skills (HOTS). Therefore, teachers are required to work collaboratively to help each other in the betterment of their teaching quality through professional learning communities. There are setbacks when it involves people working as a team, so the Collaborative Instructional Design System (CIDS) is designed. This study aims to explore English Language teachers' acceptance of the use of Collaborative Instructional Design System (CIDS): The ASIE Model as a platform to enhance professional learning community (PLC) in schools. This study used a qualitative design using semi-structured interview questions based on the Technology Acceptance Model (TAM) to investigate the ESL teachers' acceptance of the use of CIDS in enhancing the professional learning community. Findings showed that two major factors affecting the use of CIDS: The ASIE Model as a platform to conduct PLC in schools are teachers' preference for traditional PLC and teachers' attitude towards technology. Teachers' reluctance in learning how to use the system resulted in the failure to enhance PLC in schools using technology. A policy should be implemented to encourage the initiatives of teachers in embracing technology.

Keywords - Collaborative Instructional Design (CIDS), ASIE Model, the Professional Learning Community (PLC), Professional Learning Networks & Technology Acceptance Model (TAM)

I. INTRODUCTION

The education system in Malaysia aims to produce role models who can compete in the increasingly challenging globalised world through the 21st Century learning pedagogy and Higher Order Thinking Skills (HOTS). Teachers are facing many challenges in the teaching world nowadays to ensure this aim is achieved. The Malaysian Education Blueprint (2013-2015) outlined transforming teaching into the profession of choice, which is one of the eleven shifts to transform the education system. In Chapter 5 of the blueprint, is Wave 3 (2021 - 2025): Creating a peer-led culture of professional excellence. It is an aspiration where teachers work together collaboratively through the sharing of knowledge and best practices to enhance their teaching quality (Ministry of Education, 2013). Working in collaboration can be achieved through the implementation of the professional learning community (PLC). In PLCs, teachers share the same goals or visions related to the curriculum and the progress of their students, and they work together towards achieving them (Hassan, Ahmad, & Boon, 2018; Mahimuang, 2018).

PLC is in trend in many parts of the world in improving teaching quality (BPG KPM, 2010). PLC was implemented in schools in 2011 by the ministry to improve the quality of teaching and to learn among educators (Ministry of Education, 2013). PLC is a platform for teachers to share methods and best practices for the betterment of their pedagogical knowledge in improving their teaching quality (Mazlina@SitiAishah, 2016). In 2010, the Teachers Education Division team came up with an essential module for different types of PLC which could be done by teachers in schools. In the year 2011, the division had implemented 'Lesson Study' in 289 low performing schools. The outcome of teachers working in collaboration to improve the teaching quality was very encouraging. It is crucial to have strong professional learning communities to initiate a change in teachers (Tam, 2015).

As PLC is ongoing, the primary way for teachers to conduct PLC is to meet up regularly, and this involves preparing letters and memos requesting teachers to meet up (Voulalas & Sharpe, 2005). Teachers need to meet the various demand for their work, such as marking, lesson planning, extracurricular activities, attending courses, and many others. For this reason, teachers find it difficult for them to allocate time to meet up for events (Hassan et al., 2018; Saad, Walsh, Mallaburn, & Brundrett, 2017; Voulalas & Sharpe, 2005). Therefore, there is a need for an online platform for them to conduct PLC without having to stay back frequently. In a study done by Mint (2017), time can be managed more effectively when PLC is done online compared to having to meet up face to face as everyone is able to use their time accordingly based on their needs at the time. Teachers can manage their PLC according to their convenience in terms of time, space and pace with online PLC (Blitz, 2013). Therefore, collaborative instructional design system could be an alternative to overcome these challenges. This study aims to explore English Language teachers' acceptance of the use of Collaborative Instructional Design System (CIDS): The ASIE Model as a platform to enhance PLC in schools.

II. LITERATURE REVIEW

2.1 Professional Learning Communities (PLC)

Professional Learning Communities (PLC) is trending in the enhancement of teaching quality worldwide (Blitz, 2013; BPG KPM, 2010; DuFour & Reeves, 2016; Veugelers & John O'hair, 2005). However, it is still a new term amongst teachers in Malaysia (Hassan et al., 2018). If PLC is accurately executed in schools, the improvement of teaching and learning in the schools could be dramatically projected through students' achievement (DuFour & Reeves, 2016; Faiz, Yaakob, &Yunus, 2016; Hassan et al., 2018; Hudson, 2015; Tam, 2015; Veugelers & John O'hair, 2005). PLC acts as a platform for teachers to share their knowledge and experiences. Through PLC, students' achievement can also be improved as students' progress is associated with the teaching and learning process (Hassan et al., 2018). In his study, Tam (2015) states that teachers realised that they could apply what they have learned through PLCs in dealing with the problems related to the curriculum as well as teaching and learning practices. They can come up with new ideas and innovations together to improve their teaching quality.

Realising working in collaboration could contribute to teachers' professional development, the Ministry of Education (MOE) works towards transforming the teaching profession into a profession of choice through a peer-led culture of professional excellence (Ministry of Education, 2013). The focus will be on the flexibility related to curriculum timetabling and organisation of lessons, pedagogical approaches and school-based assessment which hopes to aspire teachers to work in collaboration. With this aspiration, it is expected that a culture where teachers will mentor and inspire each other, share best practices and share the responsibility of meeting professional standards could be formed. In a case study conducted by Mahimuang (2015), PLC members feel comfortable sharing their successes and failures with peers as they get support from them. At the same time, they were able to accept each other and allocate time to learn from each other as the PLC members were able to openly express themselves, creating an extension of friendship among them.

PLC also provides teachers with a chance to reflect on their teaching beliefs and practices through the sessions of sharing and discussion among peers (Voogt, Pieters, &Handelzalts, 2016). In a study done by Maslina@SitiAishah (2016), findings showed that PLC was able to enhance the Malay teachers' skill in teaching essay writing through the sharing of methods and best practices. PLC promotes self-reflection, at the same time, enhances teachers' teaching practices by applying what they learnt in the sharing process (Mazlina@SitiAishah, 2016; Tam, 2015). In a study done by Jao (2008) showed that teachers were able to improve their teaching practices through collaboration. The process of sharing ideas and recommendations by peers allowed them to have a better understanding of their learner and allow them to be more reflective of their teaching practices (Goodyear & Casey, 2015; Jao, n.d.; Soisangwarn, 2014; Trust et al., 2016; Yurtsever, 2013). In a study done by Mahimuang (2018), PLC provides opportunities and time and space for teachers to share their instructional innovations, allowing space for improvement whenever they participate in PLC sessions.

2.2 Collaborative Instructional Design System (CIDS)

Instructional design for teachers is defined as a process where teachers create instruction for their classroom systematically by setting the goals, creating learning objectives, analysing student characteristics, writing tests, selecting materials, developing activities, selecting media, implementing and revising the lesson (Carr-Chellman, 2016).

The Collaborative Instructional Design System is an innovative tool developed by Ismail Md Zain and Balakrishnan. It aims to help teachers and other professional learning communities involved in the 21st Century learning, preparing learners towards the Industrial Revolution – 4IR and the upcoming smart Society 5.0 to work in collaboration (Zain, 2018). The system aims to provide educators with a tool which can enhance the quality of instruction which caters to learners of all levels (Zain, 2017).

2.2.1 ASIE Model

The Integral ASIE Instructional Design Model (Analyze, Strategize, Implement and Evaluate) as shown in Figure 1, is an interactive online planning instructional design (ID) (Zain, Muniandy, & Hashim, 2016). It is a simple planning tool which allows teachers to strategise approaches, methods, and activities for their learners.

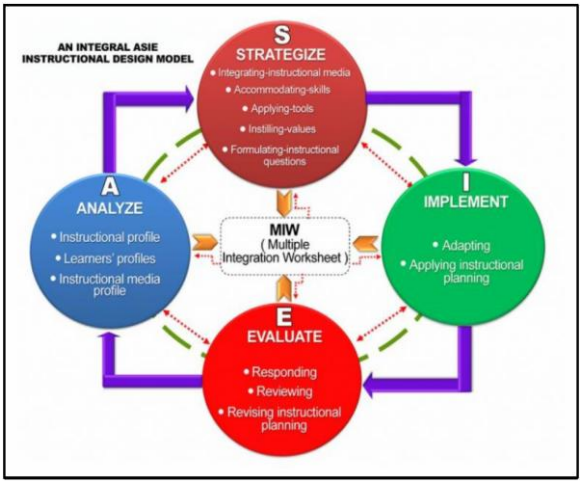


Figure 1: The main structure of An Integral ASIE Instructional Design Model (Zain & Balakrishnan, 2016)

It allows teachers to implement the 21st Century learning through lessons designed using the model. It is a flexible model where teachers can click on any aspect they want to edit. Teachers can set their learners' profiles, instructional profile and instructional media profile. They can determine the types of media, tools and choose the skills and values they want. After they have completed all the information, they can go to Mulitple Integration Worksheet (MIW) to generate their lesson plans.

Teachers can work in collaboration to plan yearly, weekly and even daily lesson plans. They can share ideas and discuss suitable pedagogy methods and skills when planning their lessons. The advantage of this system is teachers can also collaborate with teachers from other schools when it comes to lesson planning. When lesson plans are shared, teachers can edit and make amendments which are suitable for their students — sharing ideas when planning lessons help teachers to improve their pedagogy and gives them more ideas to improve their students learning.

2.2.2 Professional learning communities through CIDS

The Collaborative Instructional Design System (CIDS) also offers unique features on PLC, where teachers can connect through video conferences and forums. Through this 'global hub' teachers can share knowledge and best practices, fulfilling the aim of the implementation of PLC.

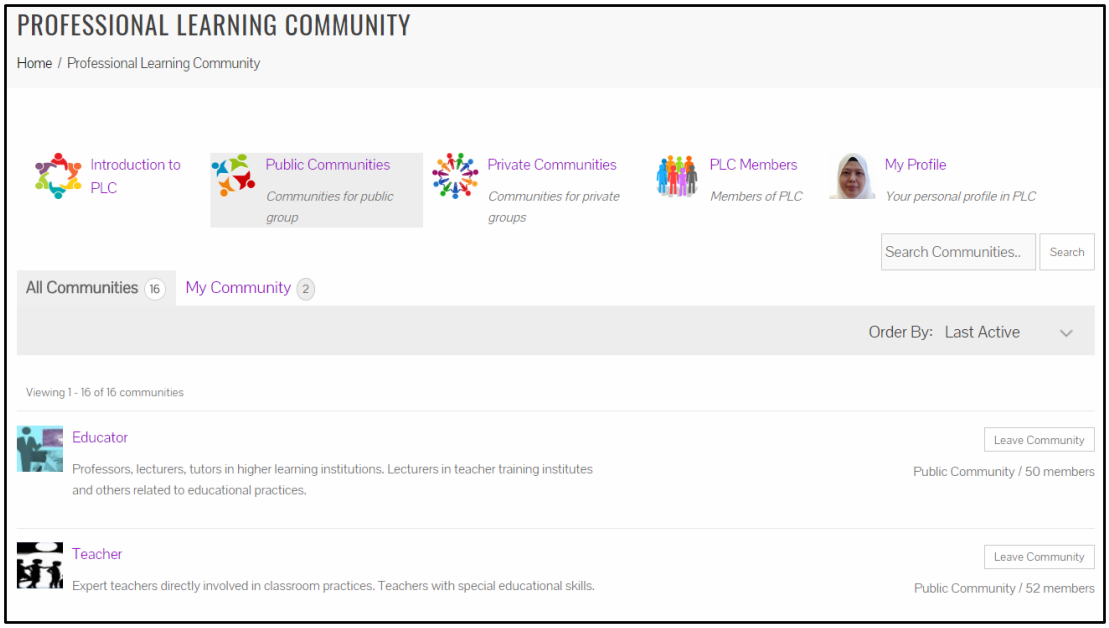


Figure 2: Print screen of the Professional Learning Community Hub (Zain & Balakrishnan, 2016)

Teachers can join any forums that they like to discuss professional issues related to the teaching profession. They can also form their communities in the hub. PLC can be done online instead of meeting up in person. Ideas and knowledge not only can be shared among teachers from the same school but better, they can also share with teachers from other schools.

This hub also allows teachers to do video conferencing. They can have a video conference in private by inviting the person that they want to video chat with, or they can also do a group video conference. This feature makes panel meetings or panel PLC sessions more convenient as they can do it from home.

CIDS: The Asie Model is significant because it offers more than just collaborative online lesson planning; it also provides a PLC hub for all teachers who are using this system to connect and work with each other. PLC is more convenient as they no longer need to do it face to face, they can also do it from home, and they can even collaborate with teachers from other schools. The main feature of PLC in schools is teachers work in collaboration towards finding the solutions to issue related to the teaching profession. Teachers could share knowledge and pedagogical ideas among themselves to make the teaching and learning process more effective.

If PLC is accurately executed in schools, the improved teaching and teaching would be evident (BPG KPM, 2010; DuFour & Reeves, 2016; Mazlini Adnan et al., 2016; Saad et al., 2017; Trust, Krutka, & Carpenter, 2016). To achieve this aim, teachers often need to meet up as PLC should be ongoing (Voulalas & Sharpe, 2005). But due to the demand for their work, it is not easy for teachers to meet up regularly (Hassan et al., 2018; Saad et al., 2017; Voulalas & Sharpe, 2005). The Collaborative Instruction Design Model (CIDS) is hoped to be able to overcome this problem as teachers could plan lessons together and share them with other teachers which also means sharing pedagogical approaches and ideas among themselves. Also, they can do PLCs online by joining communities, forums and video conferences available in CIDS. With the convenience

provided through CIDS: The ASIE Model, PLC in schools could not only be enhanced, teachers can also form their own professional learning networks (PLN).

2.3 Professional learning networks (PLN)

Professional learning networks (PLN) is a tool where schools can learn from one another (Veugelers & John O'hair, 2005). PLN is proved to be convenient and able to assist teacher development (Trust et al., 2016; Veugelers & John O'hair, 2005). In the study done by Trust, Krutka and Carpenter (2016), findings showed that teachers can grow in massive ways according to their needs through professional learning networks. Teachers need continuous support from boundary spanner, who plays a crucial role in making the teaching-learning process smooth, encouraging open professional discussions and helping in the development of communities of practice (Goodyear & Casey, 2015). It is vital to have a supportive environment so that pedagogical innovations do not fall apart. By working collaboratively, teachers can gain the support that they need (Goodyear & Casey, 2015; Trust et al., 2016). In the increasingly competitive and growing world of teaching, teachers should work and learn in collaboration because the knowledge they gained can benefit students (Veugelers & John O'hair, 2005).

2.4 Technology Acceptance Model (TAM)

One of the popular models used in investigating the acceptance of users related to technology is the technology acceptance model. (TAM). There are insufficient measurement scales for predicting user acceptance of computer (Davis, 1989). The model consists of five constructs which are perceived usefulness, perceived ease of use, attitude towards use, intention to use and actual usage, as shown in Figure 3 below.

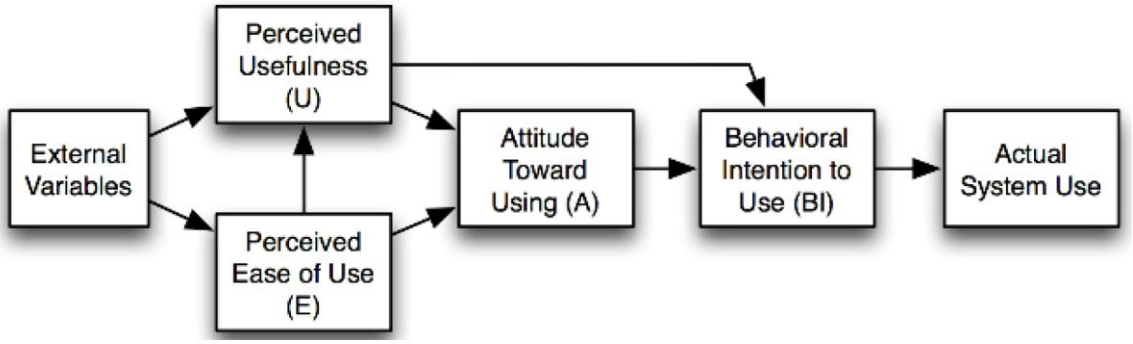


Figure 3. Technology Acceptance Model (TAM) (Davis & Bagozzi, 1989)

A study was done by Davis &Bagozzi (1989) to predict people's computer acceptance based on the five constructs. Findings showed that people's computer use can be predicted from their intentions, perceived usefulness is the major cause of people's intentions to use computers and perceived ease of use is the second cause with minimal influence on people's intention to use computers.

There are many other types of research related to technology acceptance were done based on TAM which proves that TAM is a suitable model to be used in this study as this study aims to explore English Language teachers' acceptance of the use of CIDS: The ASIE Model as a platform to enhance PLC in schools.

III. METHODOLOGY

3.1 Research design

This study utilised a qualitative design using a semi-structured interview to investigate the ESL teachers' acceptance of the use of CIDS in enhancing the professional learning community based on the Technology Acceptance Model (TAM).

3.2 Theoretical framework

This study is based on TAM because it is a well-known model in investigating users' acceptance of the use of computer and technology. The interview questions were structured according to the five constructs found in TAM as shown in Figure 3. The constructs are perceived usefulness, perceived ease of use, attitude towards use, intention to use and actual usage.

3.3 Sampling

The sampling of this study consists of English teachers from Transformation Schools (TS25). There is a total of fifty-eight TS25 schools in Negeri Sembilan. Most of the schools are using the CIDS in their schools as CIDS is promoted to mostly TS25 schools at the moment. Only a few schools which are not TS25 schools are using the system. After deciding on the number of sample subjects, the researcher adopted a voluntary sampling method to choose the five teachers from three primary schools which are using CIDS in the district of Kuala Pilah, Negeri Sembilan. The names of the teachers mentioned in this study are pseudonyms. Table 1 presents the demographic profile of the sample.

Variables	Number (n)	Percentage (%)
AGE		
24-30	1	20
31-40	1	20
41-50	2	40
51-60	1	20
GENDER		
Male	2	40
Female	3	60
SCHOOL		
Primary	3	60
Secondary	2	20
POSITION IN SCHOOL		
Senior assistant	1	20
Head of the panel	1	20
Teacher	3	60
TOTAL	5	100

Table 1. Demographic information of the sample

3.4 Instrument

The instrument used in this study is structured interview questions based on the Technology Acceptance Model (TAM) proposed by Davis in 1989. The interview questions are based on the five constructs found in TAM which are perceived usefulness, perceived ease of use, attitude towards use, intention to use and actual usage as indicated in Figure 3. Table 1 shows the research constructs related to the interview questions. The interview guideline was given to and validated by an expert. The expert stated that no modifications are needed. However, the interviewer needs to make sure that interviewees understood the questions. Therefore, the questions needed to be explained before interviewees answer them.

NO.	CONSTRUCT	INTERVIEW QUESTIONS
1	Perceived Usefulness (PU)	How does the CIDS: Asie Model help to enhance PLC in your school?
2	Perceived Ease of Use (PEU)	Does CIDS make it easier to conduct PLC in your school? How?
3	Attitude towards the use of (AU)	What do you think about using CIDS to conduct PLC?
4	Intention to use (IU)	Do you intend to continue using CIDS to conduct PLC in your school?
5	Actual Usage (AU)	How frequent would you use CIDS to conduct PLC in your school? Why?

Table 1. Research constructs related to the interview questions

3.5 Data analysis

The researcher analysed data collected from the semi-structured interview. Five open-ended questions were used to collect data related to teachers' acceptance of the CIDS: ASIE Model in enhancing PLC in their schools. Data collected were analysed using Microsoft Office Excel software.

The results from the interview were presented according to themes based on the five constructs found in the proposed model. After the responses from the interviewees have been transcribed, the transcriptions were shown to the interviewees to be checked for the reliability of data.

IV. FINDINGS AND DISCUSSION

The researcher used five open-ended questions constructed based on the TAM model to conduct a semi-structured interview with five voluntary samples. They are English language teachers from both primary and secondary schools in the district of Kuala Pilah, Negeri Sembilan who have used the CIDS: ASIE Model. Since there were only five interviewees, the data collected were analysed using Microsoft Office Word software. The results from the interview were presented according to themes based on the five constructs found in the proposed model. All names mentioned are pseudonyms.

4.1 Perceived usefulness

4.1.1 Time effective

The ASIE Model seems to be useful because it saves time. Online PLC shows that time management is more effective compared to face to face PLC (Mintz, 2017; Zain, 2017). According to Ahmad, who is a senior assistant in a primary school, with ASIE Model, teachers could do discussions via video conferencing and also when they meet up with each other during discussions related to lesson planning. They do not need to meet face to face each time they want to do PLC. To approve the statement, the interviewee stated, "It seems useful because it doesn't need teachers to gather face to face. It seems to save time."

4.1.2 Lack of collaboration

Jen stated that the ASIE Model is useful in enhancing PLC in schools, but there is a lack of collaboration among teachers because not all teachers are willing to use the system. Some teachers still prefer to practice the traditional way of PLC, which is meeting up to do discussions. The interviewee stated, "The ASIE Model helps PLC in schools but there is a lack of collaboration among teachers." If only a minority of teachers are using the system, it shows that the system cannot be used to enhance PLC in schools. The purpose of PLC is for teachers to work in collaboration towards achieving the goal they have agreed on together (Hassan et al., 2018; Mahimuang, 2018).

4.1.3 Complicated to use

According to Jen and Sam, it is not useful because teachers find it challenging to use. May stated, "The system is complicated and contains too many steps. It is a burden to teachers." Alice mentioned that it is not useful to her school. She said, "It doesn't help my school because there are other ways to do PLC. Teachers prefer face to face to make discussions easier." On the contrary, in a study done by Zain (2017), findings showed that the system reduces teachers' burden in terms of preparation of daily lesson plans through sharing and collaboration.

4.1.4 Conventional PLC

Teachers prefer the conventional way of doing PLC in their schools which is face to face. This is supported by Alice and Sam. Both of them stated that the teachers in their school prefer to do face-to-face discussions. Sam said, "Teachers prefer the old way to do PLC." They feel that it is more comfortable for them to discuss and share their knowledge and experiences in person compared to doing it online.

The conventional way also strengthens the bond between teachers. PLC members could create an extension of friendship among themselves if they feel comfortable with the sharing sessions and expressing themselves freely (Mahimuang, 2018).

4.2 Perceived Ease of Use

4.2.1 Easier to do PLC

Ahmad said, "It is easier if teachers do not need to stay back to do PLC. No time to stay back sometimes." He finds the system makes it easier for him to do PLC with the teachers because they do not need to stay back. Time is a constraint when teachers needed to stay back for PLCs.

Therefore, the ASIE Model could be an alternative for teachers who do not have time to stay back for PLC because online PLC enables teachers to do PLC without the constraint of time, space and pace of conventional PLC (Blitz, 2013).

4.2.2 Teachers' attitude

Senior teachers' attitude plays an important part in which the system cannot be used to conduct PLCs in schools. According to Jen, senior teachers find it difficult to use the system. She said, "They need to key-in so much information before they can start to use it." May stated, "Teachers in my school are reluctant to use technology to conduct PLC but they have not a problem using social media applications." She also added that teachers are not getting enough exposure regarding the system. Alice said, "The teachers in my school are reluctant to learn about the system because they said that there are too many functions and the system is difficult to use." Sam mentioned that it is difficult to use the ASIE Model in his school because teachers have no time to learn and he does not see why they need to use the system. The use friendliness of the system influences users' acceptance towards it (Davis & Bagozzi, 1989). However, Davis &Bagozzi (1989) mentioned that users are willing to tolerate a difficult interface if they feel that the system is useful to them. Again, it depends on the users' perception and attitude.

4.3 Attitude towards the use of

To do PLC online using the ASIE Model, teachers should know how to use the system first. It is a big step for senior teachers as a shift from traditional PLC to online PLC does raise concern among them (Blitz, 2013). According to Jen, Alice, and Sam, the teachers in their schools are not willing to learn. Sam stated, "No other teachers who shared the same knowledge to do discussion online with me using the ASIE Model." Hence, there will not be any impact on the enhancement of PLC in schools. On the other hand, Ahmad is positive about the use of the ASIE Model in his school. He said, "The video-conferencing feature in the PLC Hub allows me to do PLC with my teachers from home." Teachers feel it is easier to do PLC when they meet up. May stated, "The teachers in my school find it easier to meet up and discuss face to face." Blitz (2013) cited Hawkes & Good (2000), mentioned that face to face discourse was in favour and rated by teachers to be more interactive compared to the online discourse which was considered to be more reflective. But May also

added that the system can be used to do PLC when teachers use it to plan lessons online indicating that they may consider using the system to do PLC when it comes to lesson planning.

4.4 Intention to use

Two interviewees stated their intention to use the system to enhance PLC in their schools. Sam expressed his intention to use and to persuade his teachers to try using the system, although he foresees his senior teachers' attitude as a problem. Sam stated, "the system is not user-friendly and I prefer doing PLC the traditional way." Jen said, "The ASIE Model is already complete with items for PLC but I am worried that many teachers still do not want to learn how to use the system." Three interviewees stated they have no intention to use the system in their schools to conduct PLCs. Firstly, it is due to time-constraint. May stated, "Not going to use. Teachers have too much burden. No time. No benefits to the school's PLC." She also felt that the system does not benefit her school much. As mentioned earlier, if the teachers sense there is a sense of usefulness, then they will learn how to use the system because if users find the system useful, they are willing to tolerate a difficult interface (Blitz, 2013). Alice said that there is no collaboration from teachers in her school and they do not want to learn how to use the system.

4.5 Actual usage

4.5.1 Frequency

Ahmad expressed his intention of using the system. He said, "Four times a year so that teachers don't have to stay back so many times." Jen stated, " I only used the Hub once when doing a demonstration for the teachers. I want to try using the system for PLC in my school three times a year if my teachers are cooperative." The other three interviewees were not going to use the system at all except for Sam who was considering about using it when teachers discuss lesson planning. May said, "The teachers in my school do not have much time to learn and are not willing to do so." PLC enables them to work in collaboration without the constraint of time, space and pace and it was found to enable teachers to be more reflective towards their learning and instructional environment (Blitz, 2013).

4.5.2 Internet connection

Alice stated her concern about the internet connection in her school which is a problem. She confirmed her statement by saying, "I am not going to use the system due to the poor internet connection in my school." Sometimes, there is no internet connection at all. She also added, "Teachers would be unhappy if they need to use their own mobile data." The Ministry of Education has provided schools with internet connection aligned with the Shift 7: Leverage ICT to scale up quality learning across Malaysia (Ministry of Education, 2013). In some schools, the connection may be poor but if there is a need, teachers may consider using their own mobile data which cannot be avoided. Furthermore, online PLC is not necessarily done during school hours; it can be done anywhere and at any time. Therefore, the use of their mobile data cannot be avoided if online PLC is done from home out of office hours.

V. IMPLICATION AND RECOMMENDATION

Teachers need to ensure that their pupils are competitive in the globalised world. Therefore, they need to improve their teaching quality for the betterment of their pedagogical methods or approaches for the benefits of their pupils. The Ministry of Education of Malaysia encourages teachers to form professional learning communities to achieve this purpose. However, there are many factors causing difficulties for teachers to meet up for their PLC. Therefore, teachers need a platform for them to be able to PLC even though they could not meet up and one of the ways is through CIDS: The ASIE Model. In saying so, there is a need to investigate teachers' acceptance of the CIDS: The ASIE Model in enhancing PLC in schools. The researcher conducted a semi-structured interview using five open-ended questions which were constructed based on the Technology Acceptance Model (TAM).

Findings of the present study showed teachers' reluctance is accepting technology when related to PLC which led to reluctance in learning how to use the ASIE Model. Mostly are senior teachers who stated that they find the system difficult to use because there are too many elements and they have no time to learn. They do not intend to learn because they do not intend to use the system. This resulted in failure in enhancing PLC using the ASIE Model. In addition, some teachers do not see the need for them to use technology to conduct PLC. They prefer the traditional way which requires them to meet up. The researcher would like to suggest for the Ministry of Education of Malaysia to implement a policy where technology workshops or online courses related to technology are taken into account for them to achieve the compulsory merit for their professional learning development. These courses are also considered when they apply for their time-based promotion. If this policy is implemented, all teachers will take the initiative to learn about technology as there is now a need to do so.

The researcher only managed to interview five English language teachers from the district of Kuala Pilah because not many schools are using the system at present. It is suggested that for future researches, more teachers from other districts or even states could be interviewed to investigate the acceptance of teachers in using the system to enhance PLC in schools. It would be more reliable if teachers who are

teaching other subjects could be interviewed as well. Finally, more researches should be done to investigate senior teachers' acceptance of the technology. Regardless of what their age is or how many years they have taught, technology is essential and they need to utilize technology as part of their teaching pedagogy as they should not forget that they are teaching the Z generation.

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