ISSN 1798-4769
Journal of Language Teaching and Research, Vol. 13, No. 5, pp. 956-964, September 2022
DOI: https://doi.org/10.17507/jltr.1305.07

Students' Acceptance of Using CIDOS 3.5 for Learning Communicative English During Covid-19 Pandemic

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***Abstract*—In these times of globalization, it is impossible to avoid progressive educational development. The unanticipated Covid-19 pandemic has impacted negatively on Malaysia's education system, especially at the tertiary level. Thus, Malaysian Polytechnics were forced to turn to virtual teaching and learning methods. The study's featured Learning Management System (LMS) is CIDOS 3.5, which all lecturers and students are encouraged to use during the tough period. The research design is a quantitative approach. The respondents were chosen through purposive sampling based on the course they enrolled using LMS (CIDOS 3.5) they used during the Covid-19 Pandemic. The online cross-sectional survey from 100 tertiary Communicative English students at one of the Polytechnics in Sarawak, Malaysia was collected to evaluate their perceptions on CIDOS 3.5 during the Covid-19 pandemic. The findings found a high level of Perceived Usefulness, Perceived Ease of Use and Behavioral Intention. Pearson correlation coefficient indicates a statistically significant relationship between Perceived Usefulness, Perceived Ease on Behavioral Intention in using LMS CIDOS 3.5 among Communicative English students at this institution in Sarawak.**

***Index Terms*—polytechnic, communicative English, perceived usefulness, perceived ease of use, behavioral intention**

I. Introduction

Language competency facilitates collaboration and communication among individuals of various cultural origins in all aspects of life, education, and business in the era of the 21st century. As a result, language learning must be a lifelong commitment that can be accomplished to fulfill social, professional, and educational goals, in addition, personal requirements and preferences (Kukulska-Hulme et al., 2017). According to Yen and Mohamad (2020), the English language is often considered the world's lingua franca and the utmost spoken language. English as a Second Language (ESL) students go all over the world to acquire the language because of its importance and demand in today's world. As a result, much effort has been invested into developing effective methods for learning English. It is difficult to learn English as a second language as it needs a concerted, huge, and remarkable effort on the part of both students and educators (Khasbani, 2018). As society has become more globalized, the English education in Malaysia higher education has steadily shifted from grammar-translation approach to communicative approaches (Zakaria & Shah, 2019). This current approach encourages students to participate actively in class in order to improve their English, particularly their communication skills. The 4Cs of 21st-century abilities include communication skills as one of the most important skills to be mastered (Rafiq et al., 2020). As a result, many governments have designed an ultimate goal that is to ensure the empowerment of communication abilities among students through education policies. Communication skills are important to be mastered in order to produce proficient English language speakers (Ministry of Higher Education Malaysia, 2012).

The global Covid-19 pandemic has altered human norms and Malaysia economic growth (Shahzad et al., 2020). The pandemic has an impact not just on businesses, but also on education (Othman et al., 2020). Approximately 91.3 percent of the world's students, or over 1.5 billion people, are unable to attend school due to the Covid-19 pandemic (Aryanti & Ardiansyah, 2020). The Covid-19 outbreak has enormous impact on all daily operations particularly attending physical classes. Due to the uncertainties around the Covid-19 pandemic, all academics need to rethink how they interact with, teach, and support students (Chung et al., 2020). The Covid-19 pandemic has changed how lecturers and students attending classes in tertiary institutions, affecting the process of teaching and learning. Higher education institutions were forced to conduct all their students' activities via online.

Due to Covid-19 occurrence, the government imposed MCO (Movement Control Order) across the country, with all teaching and learning taking place entirely online (Yen & Mohamad, 2020; Naciri et al., 2020; Sintema, 2020). During the pandemic, CIDOS 3.5, a learning management system (LMS) is utilized by one of the polytechnics in Sarawak, Malaysia to tailor to the current needs. Learning with CIDOS 3.5 has clear benefits over traditional learning approaches and it is aligned with cognitive learning components. It is also user-friendly, and easy to use, especially in Communicative English learning. However, there are several drawbacks which demotivate Communicative English students to learn online via CIDOS 3.5. Learning and mastering a language is a challenging task especially during the outbreak. As the major driver, bandwidth becomes one of the major issues in the deployment of CIDOS 3.5. CIDOS 3.5 needs a high bandwidth to support the transmission of information. It requires high performance of internet data access to upload or download notes, answer the quiz and stream the video. Due to the insufficient loading speed it may cause students' lack of interest (Abd. Razak et al., 2018). Apart from CIDOS 3.5, polytechnic include a range of applications and computer operating systems that are merged and linked for different purposes to make it usable and provide central support within one e-learning environment. This includes the fusion and linking of various applications which increased network traffic to sustain the centralized system (Nasaruddin et al., 2021). Besides, the insufficient number of computers, the oldness or slowness of ICT systems and the lack of educational software were obstacles to effective virtual learning implementation (Nasaruddin et al., 2021). Students' low level of preparation, especially on technology expertise indicated the disappointment of CIDOS 3.5 during the pandemic since they are not fully prepared (Baczek et al., 2021). All the difficulties revealed contribute to students' lack of communication, confidence, and also no motivation in learning Communicative English. In order to improve students' Communicative English, this study aimed to identify the Perceived Usefulness, Perceived Ease of Use and Behavioral Intention. Simultaneously to confirm the significant relationship between Perceived Usefulness, Perceived Ease on Behavioral Intention in using LMS CIDOS 3.5 among Communicative English students towards using CIDOS 3.5, a software application or Web-based technology that is used to organize and manage the activities of students during the Covid-19 Epidemic.

II. Literature Review

A. The Integration of Technology in Malaysia System During the Covid-19 Pandemic

The global proliferation of COVID-19 has a significant impact on every sector, including education, and Malaysia is no different. Due to the difficulty of keeping the disease from spreading further, severe regulations have been enforced to break the COVID-19 transmission cycle. In the aftermath of the COVID-19 pandemic lockdown, many educational institutions in Malaysia has begun shifting to online teaching to deal with the situation. Universiti Teknologi MARA (UiTM), a Malaysian public institution, started offering online courses on April 12, 2020. The Learning Management System (LMS) known as UFuture was developed at the same time as the earlier i-Learn framework (a one-stop-shop for students to access reading materials, ask questions, and participate in other online learning events) (Chung et al., 2020). Even though it is expected to prepare students for self-directed learning, its practical application is still low (Seman et al., 2019).

According to DeAlwis and David (2020), or the activation of online teaching and learning, SPeCTRUM (University Malaya, Kuala Lumpur in-house online-learning platform) and other Teaching and Learning online tools were employed. Other online education platform links provided by the Malaysian Ministry of Education include digital textbooks, videos for teaching and learning (EduwebTV/ CikgooTube), and connections to teaching and learning applications such as Edpuzzle (an interactive video type teaching application), Quizizz (quiz game), and Kahoot (question game) (game-based learning platform). Additionally, DELIMa (Digital Educational Learning Initiative Malaysia) is a renamed Ministry of Education Digital Learning platform developed by KPM following the Frog VLE. DELIMa is a single platform that provides students with learning resources as well as learning management system services, and it can be accessed at https://mypt3.com/portal-delima-kpm using an existing Google account) (Ministry of Education, 2021). Vice-chancellor of Universiti Malaysia Pahang (UMP) indicated that their university technological teams assist the academic staff in activating the online-Learning mode via online classrooms. Through KALAM, UMP's Knowledge & Learning Management System, all academic staff can successfully incorporate online learning methods during lecture sessions utilizing appropriate online apps.

The Curriculum Information Document Online System (CIDOS), an open-source learning management system (LMS), was introduced in 2011 and was utilized as an e-learning medium in polytechnics) (Ahmad & Mohamed, 2017). CIDOS 3.5 had played an important role during the Covid-19 Pandemic in assisting all the polytechnics' lecturers and students in their teaching and learning activities while the institutions were closed. This fully automated document management platform, which includes features like uploading, updating, and sharing digital content, allowing the lecturers and students in the polytechnics to connect with each other virtually (Adam et al., 2021; Md Yusop, 2018). With the use of CIDOS 3.5 during the Covid-19 Pandemic, teaching and learning activities could be conducted fully online when the MCO (Movement Control Order) was enforced and all face-to-face activities were prohibited. Students used CIDOS 3.5 to submit their assignments and keep track of the progress. In addition, they receive feedback from their lecturers on the tasks given. Besides, the discussion board or forum enables them to have discussion; besides creating engagement among classmates and lecturers. The online quiz features also allowed them to complete their assessment online. A study by Arshad et al. (2021) have proven that Port Dickson Polytechnic's students' acceptance of

e-learning platforms like MOOCs, CIDOS, and so on was based on the platforms' usefulness and ease of use. Generally, students accept the e-learning platforms which enable them in assessing the learning materials for certain courses during the Covid-19 pandemic (Zainuddin et al., 2021). Adam et al. (2020**)** indicated that teaching and learning can take place anywhere and at any time with CIDOS 3.5 since it is not bound by class time or physical presence by the students and teachers. During the pandemic, students could choose to learn at their own pace, regardless of any unforeseen circumstances, especially when they are under quarantine and cannot keep pace with the lesson) (Ashrafi et al., 2020). The features of CIDOS 3.5 also ease students in attaining their learning materials and completing their assessments) (Bangga et al., 2021). Facilitating conditions play an important role in facilitating both parties, lecturers and students (Al-Rahmi et al., 2021; Adam et al., 2021). Their study indicates that the facilitating condition is significantly positive with CIDOS 3.5 utilization in Mukah Polytechnic, Sarawak. CIDOS 3.5 facilitates the online teaching and learning among lecturers and students during MCO by promoting efficient and effective control over curriculum documents, teaching and learning materials as well as providing interactive communication between both parties (Mohamad et al., 2021; Razali & Shahbodin, 2014). It is safe to conclude that CIDOS 3.5 provides an array of benefits for polytechnic lecturers and students in their teaching and learning especially during the Covid-19 pandemic.

B. Connectivism Theory

Connectivism, according to Siemens (2005), is a modern-day learning paradigm that incorporates principles like globalization, technology, lifelong learning, and digital information. Connectivism, he added, is the convergence of concepts discussed by chaos, network, complexity, and self-organizing theories. According to Duke et al. (2013), connectivism is the product of our constant evolving environment, in which our society is becoming more complex, globally interconnected, and mediated by technological advancements. Since cognition and learning are diffused not just among individuals but also among other aspects. According to Mattar (2018), we should outsource certain cognitive work to machines as they are more effective in completing certain jobs than humans. In online courses, the learners often have the option of interacting with the course materials at any time and place (Rusli et al., 2019).

The Learning Management System (CIDOS 3.5) was designed to help students in bridging the gap between their daily experiences and structured learning, as well as to introduce learning in a 21st-century context. CIDOS 3.5 is a safe and secure online learning management system for collaboration and learning, as well as managing an online classroom and providing professional development for educators. The user-friendly feature of CIDOS 3.5 encourages student involvement and meaningful learning. This Learning Management System's interface resembles that of 'Facebook,' allowing 21st-century learners and educators who are familiar with social networking sites to feel at ease (Balasubramanian et al., 2014; Hashim et al., 2019). Academic institutions in all nations have adopted mobile-learning (learning across online platforms via mobile mediated devices), according to Deljanin et al. (2017) in their study. This has improved tertiary teaching and learning. The CIDOS 3.5 platform can also be accessed via a mobile phone using the Moodle App. The Moodle app has a function that allows you to access course content even when you're not connected to the internet. It keeps students informed by sending quick notifications, allowing for interaction with classmates, assignment submission, progress tracking, and access flexibility

According to Balasubramanian et al. (2014), students showed a positive attitude toward using online learning management system using mobile devices because it allowed better communication in learning and save time. The components of successful communication and time-saving in CIDOS 3.5 are aligned with Connectivism, a theory that is relevant, and significant in today's digital learning environment. Siemens and Tittenberger (2009, p.11) stated that "knowledge and cognition are supplied via networks of human and technological networks, and the process of connecting, extending, and navigating such networks is learning," based on the Connectivism principles.

C. Socio-Constructivism Theory

According to Vygotsky's socio-constructivism (1978) individuals are dynamic participants in producing their own knowledge. Learning, he believes, involves societal and cultural surroundings rather than entirely within the individuals. Students learn primarily through collaboration with their teachers, classmates, and parents, while teachers use the natural flow of classroom conversation to inspire and drive discussion (Amineh & Davatgari Asl, 2015). Socio-constructivism proponents contend that instructional supervision is essentially reliant on interactive communication, with the main focus on the students' intellectual capacity for the discussion.

Through an online course or with proper technologies, Vygotsky's (1978) Zone of Proximal Development work promotes connectivism, whether in person or online; however, because of technology ability to assist learners, it may also subvert the results of Zone of Proximal Development in an online course or with proper technologies (Carlson, 2020). Mattar (2008) implied in his study, learner support through the ZPD can be properly practiced both by the resources (learning takes place outside of people) and through community cooperation) and this collaboration builds the team's knowledge, not just individual knowledge. Learning should initially take place outside humans, such as through the storing and processing data by technical instruments.

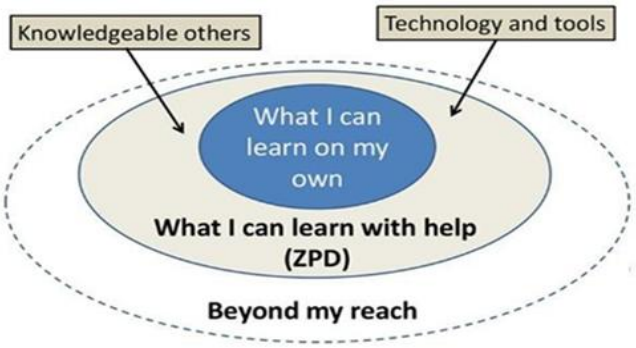

Figure 1: Vygotsky's Zone of Proximal Development (ZPD)
Adapted from Steve Wheeler (2015)

Figure 1 shows how ZPD makes learning easier. The inner-circle represents what a student will do based on his or her own ability. The outside circle represents what he or she might learn from peers. This circle will be strengthened by interaction with experienced others, as well as the use of technology and resources. Referring to Figure 1, students with the English Language background can perform well, but they are not able to achieve their best. Students' performance can be improved at the Zone of Proximal Development (ZPD) with the help of knowledgeable persons (teachers, parents, and peers) or technology and tools, (CIDOS 3.5). All types of instructional materials uploaded by the educators are available in CIDOS 3.5 are to aid Communicative English students' learning. They would gain a better understanding of the contents of Communicative English with the assistance of competent others. Students would be able to study by revising and practicing with the assistance of lecturers and classmates. Students could do well in a communicative English course once they have mastered all the skills.

D. TAM Model

In this study, the extended TAM model has been used as the basis for evaluating Polytechnic Communicative English students' acceptance of CIDOS 3.5 during the Covid-19 Pandemic. Davis (1989) first established the Technology Acceptance Model (TAM) to explain and predict the uptake of computer technology. According to Davis's paradigm, for technology to be accepted, the performance of a given activity must be better with it than without it, and the added value must be obvious. TAM has been thoroughly explored and validated in a few studies that looked into individual technology adoption behavior in a variety of information system constructs, particularly during the Covid-19 pandemic (Kusumadewi et al., 2021; Lazim et al., 2021; Sukendro et al., 2020; Deraman & Jawawi, 2020).

In the TAM model, there are two elements that are important in human behaviors towards computer use: perceived usefulness and perceived ease of use. Perceived usefulness is defined by Davis (1989) as a prospective user's subjective likelihood of utilizing a certain application system to improve his or her job or life performance. The degree to which a user forestalls the target system to be effort-free is described as perceived ease of use (Surendran, 2012). According to TAM, the most important determinants of actual system use are perceived ease of use and perceived usefulness. There are a few past studies that indicate the suitability of TAM model in analyzing Communicative English students' perception towards CIDOS 3.5 (Arshad et al., 2021; Ashrafi et al., 2020; Deraman & Jawawi, 2020; Md Yusop, 2018; Romli, 2016).

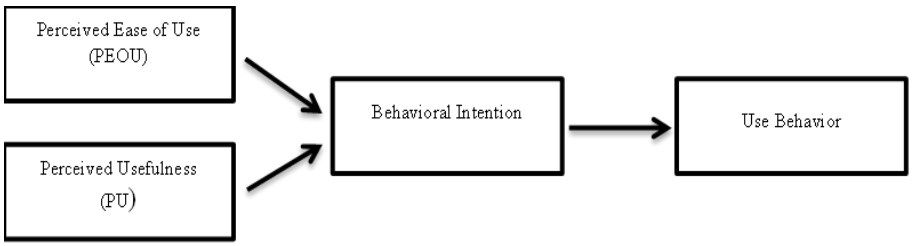

Figure 2: TAM Model

Figure 2 shows the TAM Model by Davis (1989). The Perceived Ease of Use (PEOU), Perceived Usefulness (PU), and Behavioral Intention (BI) are the three key constructs in TAM. This indicates that if users consider technology to be easy to be used and beneficial, they are more inclined to use it. Then, the users' behavior is determined by behavioral intention. The users' inclination to use technology will develop if they have a positive perception towards the technology. The technology use will be influenced by the intention to use it. As a result, this model provides insight into users' acceptability of a new technological tool, which is critical in determining the users' usage.

III. METHODOLOGY

A. Research Design

This study used the quantitative method. According to Cohen et al. (2018), quantitative data, such as instrument scores, provide specific figures that may be analyzed statistically to establish the frequency and size of trends. The information is valuable to characterize patterns for a large group of respondents (Cohen et al., 2018). A 5-point Likert scale questionnaire was used to collect data for this empirical study.

B. Research Samples

In this study, the purposive sampling method is used. Purposive sampling or judgment sampling is the intentional selection of a participant based on their characteristics (Etikan et al., 2016). Purposive sampling, according to Creswell and Plano (2011), is locating and selecting people or groups of people who are knowledgeable and experienced about a specific issue. 100 Communicative English students who enrolled for the semester 4 English subject 'Communicative English 3' in one of the polytechnics in Sarawak, Malaysia were selected as the samples of this study by using the purposive sampling method. They were chosen because they used CIDOS 3.5 in their Communicative English learning during the Covid-19 Pandemic. One of the researchers is a lecturer serving the institution and has been given the permission (the researchers filled in a form and it is signed by the institution director) to conduct our research there. The researchers have submitted the research proposal and questionnaire to be approved by the ethics committee of the institution involved in this study. This is a normal procedure in our country whereby permission should be given by the director of the targeted institution prior to the research. The approval date was on 9 September 2021.

C. Research Instruments

In this study, data was collected by using a 5-likert scale questionnaire. The questionnaire consists of 11 items which were divided into three sections. Section A comprises 4 items pertaining to Perceived Ease of Use (PEOU). Section B comprises 4 items pertaining to Perceived Usefulness (PU). The last section is Section C with 3 items based on Behavioral Intention (BI). All the items were adapted from Venkatesh and Bala (2008). Descriptive statistics and Pearson correlation were used to analyze the data.

D. Pilot Study

The online questionnaire (via Google Form) was distributed to 30 polytechnic students who were chosen for the pilot test (CIDOS 3.5 users). These students were not included in the actual study students list. It took a day in collecting all the responses. Only 24 out of 30 questionnaires were returned. According to Connelly (2008), the size of the sample for a pilot study should be 10% of the sample size projected for the larger parent study, based on available literature. Since there are 100 purposive samples in this study, a pilot test with 20 students is appropriate. A pilot study with 20 to 40 samples, according to Hertzog (2008) is sufficient for the pilot study.

E. Validity and Reliability

The items for the questionnaire used for this study had gone through the process of content and face validity. Three experts had been consulted on the feedback and suggestions. The term "reliability" refers to a measure of consistency throughout time, across similar samples, and across different uses of the instrument in question (Cohen et al., 2018). Using the Likert Scale score obtained during the pilot test, Cronbach Alpha was utilized to analyze the questionnaire's internal consistency. The reliability classification of Alias (1999) is used in this study. The Cronbach Alpha values for these three constructs are higher than 0.80 which is considered very strong.

IV. Results and Findings

The summary of level of Communicative English students' Perceived Usefulness (PU), Perceived Ease of Use (PEOU), and Behavioral Intention (BI) towards CIDOS 3.5 during the Covid-19 Pandemic are displayed in Table 3 where min all of them is more than 4.00, Standard Deviation is more than .66. They are all normally distributed and high reliability.

TABLE 3
MIN, STANDARD DEVIATION, SKEWNESS AND RELIABILITY OF SCALE CONSTRUCTS

SStatements	N	MMin	SSD	SSkewness	CCronbach Alpha
PPerceived Ease of Use (PEOU)	1	4.20	..66	-.32	..93
PPerceived Usefulness (PU)	1	4.15	..70	-.37	..88
BBehavioral Intention (BI)		1.26	..70	-.38	..89

A correlation was computed to determine any evidence of statistically significant association between PEOU and BI, PU and BI. All the assumptions were met. Thus, the Pearson correlation statistic was calculated, $r(98) = .83$, $p < .01$ and $r(98) = .80$, $p < .01$ respectively. Both correlations were positively correlated, the result shows that students who have highly PEOU and PU tend to have higher BI and vice versa. However, the effect sizes are small for both correlations (.09 and .16). The r2 indicates that nearly 70% of the variance in PEOU and 64% in PU.

V. Discussion

The findings revealed that Communicative English students had a generally positive perception of using CIDOS 3.5 during the Covid-19 Pandemic. The ease of use of CIDOS 3.5 is the most important component that adds to the positivity (Md Yusop, 2018; Deraman & Jawawi, 2020). This is due to CIDOS 3.5's user-friendly interface, which also includes a set of instructions for first-time users (Adam et al., 2021). CIDOS 3.5 is simple to learn because it simply covers basic computer features, for example, downloading and uploading files (Nasaruddin et al., 2021). Regardless, it is critical to consider the target audience in order to ensure that CIDOS 3.5's interface is user-friendly for people who are not familiar with it (Amir et al., 2020; Romli, 2016). With the present trend, practically everyone owns digital devices, especially a mobile phone, which can be used to access CIDOS 3.5 via the available applications through their mobile phone, which is likewise convenient for everyone, particularly during the Covid-19 pandemic). In socio constructivism theory, Vygotsky's (1978) Zone of Proximal Development work promotes connectivism in an online course or with appropriate technologies. This was supported by Carlson (2020) and Mattar (2018) that students learn primarily via interactions with their classmates, teachers, and parents (knowledgeable people) or technology and tools and this could enhance their performance in learning. During the Covid-19 pandemic, technological tools (CIDOS 3.5) played an important role in helping polytechnic students in obtaining their learning materials, completing the assessment, and also interacting with lecturers at their own pace (Zainuddin et al., 2021; Arshad et al., 2021).

Next, CIDOS 3.5 is useful as perceived by the Communicative English students. As can be seen, the majority of students in Communicative English believed CIDOS 3.5 was helpful in studying Communicative English during the Covid-19 epidemic. This is significant because students would not utilize a tool that they think to be ineffective. Furthermore, CIDOS 3.5 is undeniably beneficial because learners could learn at their own pace, which would indirectly increase learning input because learners would be able to focus on learning at their own pace rather than learning everything in a day, as mentioned in many studies (Nasaruddin et al., 2021; Adam et al., 2020; Deraman & Jawawi, 2020; Romli, 2016; Razali & Shahbodin, 2014). According to the Balasubramanian et al. (2014) connectivism theoretical perspective, social-media like interface of CIDOS 3.5 allows 21st-century students and educators who are comfortable using social networking sites to feel at ease in using the system. Bangga et al. (2021) implied that with the usage of CIDOS 3.5, students were able to promote effective learning due to the familiar interface. This was supported by Nasaruddin et al. (2021) that with user-friendly features, CIDOS 3.5 allows effortless access to learning materials which will lead to swift learning and encourage more students in utilizing it.

Ultimately, the use of CIDOS 3.5 sparked a positive attitude among polytechnic students who enrolled in Communicative English course in their English language classroom during the Covid-19 pandemic. Flexibility in teaching and learning during the Covid-19 pandemic was one of the most common reasons for encouraging students to utilize technological tools like CIDOS 3.5 (Shahzad et al., 2020; Siemens, 2005). Students may access teaching and learning materials and monitor their classroom activities from anywhere with the use of CIDOS 3.5. Bangga et al. (2021) further suggested that course materials and activities should be distributed and completed virtually even if teachers and students were physically separated. Indirectly, this enabled students who purportedly experienced significant levels of anxiety as a result of the Covid-19 outbreak to find CIDOS 3.5 to be useful for their Communicative English learning, therefore, increasing learners' performance.

VI. Conclusion

The aim of this study was to explore the perception of Communicative English towards CIDOS 3.5 during the Covid-19 pandemic. The data revealed that students perceived CIDOS 3.5 as a useful and effective instrument for Communicative English learning. Moreover, users' friendly features ease students in gaining their English knowledge in a more creative and enjoyable way. In short, CIDOS 3.5 could be a beneficial educational learning management system for students to utilize especially during the Covid-19 pandemic. This study could help polytechnics think about how they can help students improve their technical abilities by encouraging them to enroll in CIDOS 3.5 or providing them with training on how to use CIODS 3.5 effectively in their study. Future research could examine the challenges that Communicative English students faced in using CIDOS 3.5 during the Covid-19 pandemic. This could alert the institution to the challenges that students face and help them to overcome the arising issues. As a result, online open learning could be a useful education tool that could serve as an alternate learning platform for everyone, particularly for those who prefer self-paced learning.

Acknowledgements

This research received funded by the Faculty of Education, Universiti Kebangsaan Malaysia (GG-2020-021).

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