STUDENTS' PERCEPTIONS ON THE IMPLEMENTATION AND CHALLENGES OF COMPUTER-BASED LANGUAGE TEST FOR DIPLOMA COURSE ASSESSMENT

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ABSTRACT

Online assessment has become prominent in the education system. However, the implementation of CBLT has posed different challenges faced by students in completing the assessment. Therefore, the present study aimed to find out students' perceptions on the implementation of CBLT and its challenges, to determine the significant differences between the implementation of CBLT and faculty clusters. This study utilised a quantitative research approach. The questionnaire employed in this study was adopted and adapted from previous studies with 3159 students from a population of 4600 who enrolled for ELC121. The data was analysed using Statistical Package for the Social Sciences (SPSS v27) and were reported for mean, standard deviation, and ANOVA. The findings show that the students were positive towards the implementation of CBLT and there were significant differences of perception among faculty clusters. Thus, the future teaching and learning process should integrate the use of technology.

Contribution/ Originality: A computer-based testing application was developed and maintained by a group of English language lecturers from the Language Academy of one of public universities in Malaysia. This application helps students to access and complete the assessment remotely on their own with little demand for Internet connection.

1. INTRODUCTION

Assessment is vital in teaching and learning to evaluate whether the students have achieved the targeted learning outcome. The world had an abrupt shift into digitalising assessment since the world was hit with COVID-19 pandemic in 2020, online assessment has been more profound than ever. Several constraints in the implementation of computer-based testing include providing facilities which meet the test standard, Internet network problems (Nartiningrum & Nugroho, 2020; Retnawati et al., 2017) students' readiness in using technologies (Kearns, 2012; Retnawati et al., 2017) and constraints related to the committee and supervisors (Retnawati et al., 2017) lack of communication (Nartiningrum & Nugroho, 2020) among others. These studies anticipated these challenges to be among the expected findings from the implementation of CBLT nationwide.

During the COVID-19 pandemic, many learning approaches and assessments have been revised to cater to students studying in distance with lack of accessibility to the Internet and technologies. Hence, a computer-based testing application was developed by a group of lecturers from the Language Academy of this Malaysian University, which enables students to access and complete the assessment on their own with little demand for Internet connection to cater to students who are deprived of facilities and good Internet connection. In fact, students are to be connected to the Internet for submission purposes only.

The application was made available for the students and for the first time ever, they can download and do the listening assessments on their own. The listening test consists of 5 different sets of questions for students to complete. However, its first deployment has raised many issues which are mostly related to technicalities and the implementation of this kind of online assessment. Thus, this research seeks to find out students' perceptions on the implementation of Computer-based Language Test (CBLT) and its challenges. This study will also determine whether there are significant differences between the implementation of CBLT and faculty clusters and regions.

These are the research questions for this study which are:

a. What are ELC121 students' perceptions towards the implementation of Computer-based Language Test (CBLT)?

b. What are ELC121 students' perceptions towards the challenges of the Computer-based Language Test (CBLT)?

c. What are the challenges faced by ELC121 students in completing Computer-based Language Test (CBLT) based on faculty clusters (Science and Technology, Business and Management and Social Sciences and Humanities)?

d. Is there any significance of the challenges faced by ELC121 students in completing Computer-based Listening Language (CBLT) based on faculty clusters (Science and Technology, Business and Management and Social Sciences and Humanities)?

2. LITERATURE REVIEW

2.1. Perceptions on Online Assessments

Online assessments are currently used as one of the methods in conducting the assessment for students in the world due to the outbreak of COVID-19 pandemic. According to Hussain, Daoud, Alrabaiah, and Owais (2020) high achiever students were not really accepting online assessments because they deemed it to be less challenging and lack of competition. In other words, it can be said that these students felt that online assessment was quite unfair maybe because both higher and lower achiever students would get similar results and grades which they were not fond of the idea. Hence, the education institutions need to really ensure that the methods, platforms, and contents of the online assessments are suitable with students' proficiency level. Female students were noticed to be more stressful compared to male students when they attended online assessments. One of the reasons would be due to technical problems and issues faced by students during the online assessments. Other issues mentioned are issues of reliability and security of the online assessments (Afacan Adanır, İsmailova, Omuraliev, & Muhametjanova, 2020). The issues of technical problems and reliability of the online assessments are something that need to be taken into consideration especially the educators when conducting the online assessments.

Another interesting finding was discovered by Iskandar, Ganesan, ShafiqahEleena, and Maulana (2021) where the higher education students from one of the public universities in Malaysia stated that they would prefer to have traditional assessments rather than online assessments. This was due to three issues faced by them which the highest was communication issues, followed by personal issues and technical issues. In other words, students may have difficulties communicating with the lecturers and their peers when online assessments are conducted. However, the results indicated by Rostaminezhad (2019) contradicted with Iskandar et al. (2021) where he stated that students have two sides of opinions on online assessment. A part of students had a positive attitude towards online assessment due

to immediate feedback given by the educators and a part of students were quite stressed to have immediate feedback from educators. The different results obtained from Iskandar et al. (2021) and Rostaminezhad (2019) could be due to different context and Rostaminezhad (2019) study was conducted before COVID-19 pandemic and Iskandar et al. (2021) was conducted during COVID-19 pandemic. Therefore, the current research would like to discuss the students' perceptions towards the challenges faced during online assessment.

2.2. Challenges on Online Listening Assessment

There are challenges that students might face when they do their listening assessment. Previously, before COVID-19 pandemic hit this world, the students had issues learning listening skills and did their assessment well. For example in Istanbul, Turkey, the students experienced difficulties to listen and comprehend the listening materials in class because they were not very familiar with the phonetics and pronunciation of the English language (Yılmaz & Yavuz, 2015). This situation happened because English was not their first language. Besides, the other challenges that faced by the students in Indonesia were the incomprehensiveness of vocabulary, lack of classroom facilities and insufficient time provided and allocated for listening sessions (Utomo, Kusmaryati, & Sulistyowati, 2019). Based on the issues stated, it seems that learning listening skills was difficult due to unfamiliar sounds and words used. This is because the students were not exposed to the language in their daily life. Other than that, it can be seen also that learning listening skills was not the teacher's priority to teach the skills. This is due to lack of equipment and time allocation for students to learn and practise their listening skills. Hence, these were the challenges faced by students and educators before COVID-19 pandemic.

After COVID-19 pandemic hit the world, the education sector needed to change and adapt the process of teaching and learning to a more suitable approach as the students could not be physically present and visible in the classroom during this pandemic. Not just teaching and learning process, the assessments which have always been part of it also need to be adapted to the situation and the most suitable approach at the time would be integrating technology into the process of teaching and learning and conducting the assessments. Nevertheless, there are also issues faced by the students. According to Megat Abdul Rahim, Idris, Abdul Rahman, Ya Shaq, and Nasir (2021), in Malaysia setting, they stated that the students were having fun and enjoyable experiences when they had listening tasks. However, the researchers also found out that the majority of the students were not eager to learn via online. Indirectly, it can be said that students themselves were not ready to face online learning, what more to experience online tests or assessments. Other than not being ready to face online tests and assessments, the students were having challenges in terms of internet connection, not being familiar with the software or the applications, short attention span, unclear sounds and voices due to unstable internet connection and not suitable devices used, and lack of vocabulary and context (Ha & Ngo, 2021). All these issues need to be taken seriously as it may affect the future of teaching and learning processes specifically and education sector generally.

3. RESEARCH DESIGN

The study employs a cross-sectional survey design since it fits the purpose of eliciting responses from a large-scale population and useful for measuring current attitudes, beliefs, opinions or practices (Creswell, 2008; Goodwin, 2005). Figure 1 illustrates the flow of the research procedures.
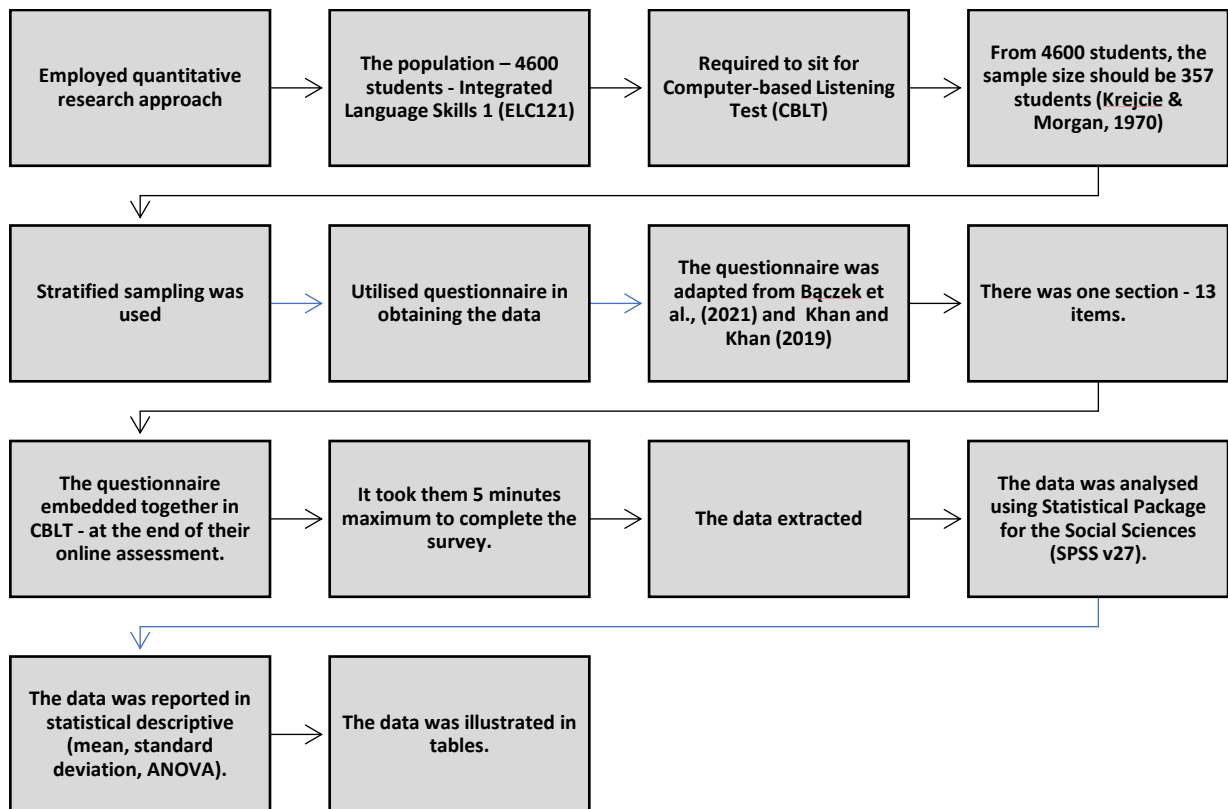
Figure 1. Methods of data collection and analysis.

The population for this study is among the first semester students who enrolled for a listening English course designed for first semester students from a local university and there is a total of 4600 students nationwide. They were required to sit for the Computer-based Language Test (CBLT) as part of their course assessment. From 4600 respondents, the sample size for this study was 3159 with 95% confidence interval and 1.0% margin of error (Krejcie & Morgan, 1970).

The questionnaire which was adopted and adapted from Bączek, Zagańczyk-Bączek, Szpringer, Jaroszyński, and Wożakowska-Kapłon (2021) and Khan and Khan (2019) returned a Cronbach Alpha reliability value of .621, which is in the range of moderate but acceptable, was utilised in obtaining the data. This is suggested by Taber (2018), the calculated values of 0.6 and below for Cronbach's Alpha can be considered as unacceptable values. It elicited responses using the 5-point Likert Scale; Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. There was only one section in the questionnaire comprising 13 items, which is on the challenges in the implementation of online assessments. The demographic details of the respondents were collected using an interface where they were required to fill in before accessing the test. The questionnaire was a part of the CBLT and the students were required to take the survey at the end of their online assessment. It took only 5 minutes maximum for them to complete the survey. The data were then extracted from the online assessment before it was analysed using Statistical Package for the Social Sciences (SPSS v27). The data were reported in the form of descriptive (mean and standard deviation) and inferential statistics (ANOVA). The data were illustrated in tables.

4. ANALYSIS AND DISCUSSION

4.1. Findings

To address the first and second research questions, the mean and standard deviation for students' perceptions towards the implementation and challenges of CBLT were computed.

Table 1. Students' perceptions towards the implementation and challenges of CBLT.

Perception	Mean (*N*=3158)	S.D. (*N*=3158)
Implementation	3.580	0.520
Challenges	3.155	0.318

Table 1 shows students' perceptions towards the implementation and challenges of CBLT. The implementation of CBLT was agreed by the respondents that the implementation is a success ($M = 3.580$, $S.D = 0.520$). As for the challenges, it was reported that the respondents were inclined towards the perception that ($M = 3.155$, $S.D = 0.318$).

In identifying the challenges faced by ELC121 students in completing Computer-based Language Test (CBLT) based on faculty clusters (Science and Technology, Social Sciences and Humanities, and Business and Management), the mean was computed, and standard deviation is also reported in the following Table 2.

Table 2. Challenges faced by students (Science & Technology; Social Science & Humanities; Business & Management).

Science & Technology		
Items	**Mean**	**S.D.**
I have good access to the Internet to complete this listening test	3.800	0.826
I have issues with the listening audio	2.740	1.030
Social Science & Humanities		
Items	Mean	S.D.
I have good access to the Internet to complete this listening test	3.830	0.808
This application is compatible for all devices	2.480	0.894
Business & Management		
Items	Mean	S.D.
I have good access to the Internet to complete this listening test	3.780	0.814
This application is compatible for all devices	2.500	0.870

Table 2 illustrates challenges faced by students from the Science and Technology, Social Science and Humanities and Business and Management. The least challenging problem faced by students from all three major groups (Science and Technology, Social Science and Humanities and Business and Management) would be with the Internet connection (M= 3.800, SD= 1.030; M= 3.830, SD= 0.808; M=3.780, SD= 0.814). Based on Table 2 the most challenging problem faced by students from Science and Technology is having issues with the listening audio (M= 2.740, SD= 0.826). As for students from Social Science and Humanities and Business and Management, the most challenging problem for the students is the compatibility of the application used (M= 2.480, SD= 0.894; M= 2.500, SD= 0.870).

It was shown in Table 3. that the respondents from Science and Technology group perceived that there are challenges in completing CBLT ($M = 3.113$, $S.D = 0.326$). As for those in Social Science and Humanities ($M = 3.160$, $S.D = 0.343$), and Business and Management ($M = 3.158$, $S.D = 0.320$) groups indicated slightly higher agreement compared to the earlier group.

Table 3. Challenges faced by students according to group.

Faculty Clusters	Mean (*N*=3158)	S.D. (*N*=3158)
Science & Technology	3.113	0.326
Social Science & Humanities	3.160	0.343
Business & Management	3.158	0.320

Table 4. Mean differences of the challenges faced by students.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.516	3	0.505	4.720	0.003

A one-way between-groups analysis of variance was conducted, as presented in Table 4, to explore the challenges faced by listening English course students in completing Computer-based Language Test (CBLT) based on faculty clusters: Group 1: Science and Technology; Group 2: Social Sciences and Humanities; and Group 3: Business and Management. As portrayed in Table 4, there was a significance difference of perceptions on the challenged faces by the students on CBLT. There was a statistically significant difference at the $p < .05$ level of agreement for the three faculty clusters: $F (2, 3155) = 3.723$, $p = .02$. Despite reaching statistical significance, the actual difference in mean scores between the groups was small. The effect size calculated using eta squared, was 0.002. To further identify the significance difference, a Post-hoc comparison using the Tukey HSD test was computed as shown in Table 5, which indicated that the mean score for Science and Technology group ($M = 3.113$, $SD = .326$) was significantly different from the Social Science and Humanities group ($M = 3.160$, $SD = .343$) and Business & Management group ($M = 3.158$, $SD = .320$). However, the Social Science and Humanities group and Business & Management group have no significant mean difference.

Table 5. Significant mean differences of the challenges faced by students between faculties.

(I) Faculty	(J) Faculty	Mean Difference (I-J)	Sig.
Science and Technology	Social Science and Humanities	-0.047*	0.039
Science and Technology	Business and Management	-0.045*	0.250
Social Science and Humanities	Business and Management	0.002	0.986

Note: *Significance value: p<0.05.

4.2. Discussion

Based on the findings obtained, it was discovered that students' perception of the implementation of CBLT in a positive attitude and manner. This is in line with research done by Rahmatia and Widiastuty (2018). In the Indonesia setting, they found out that students viewed the use of podcasts for their listening course as easy and enjoyable. This is maybe because the students were familiar with the use of podcasts or maybe using podcasts would be a new method introduced by the instructors. CBLT and podcasts have the same concept where students need to listen to the audio and answer the questions. Hence, in today's era, the use of technology in the classroom should be familiarised among students as they may use it later in the future in real-life situations.

Other than that, this current study observed that, in general, the students were unsure whether CBLT was considered as a challenge or not. This is maybe because the majority of students managed to complete the assessments successfully while there were students who still struggling to finish them. However, based on the results, when the researchers narrowed down and focused on different groups based on their field of study, students did face a few challenges in completing CBLT. The result is parallel with a study in Vietnam where students did face a few challenges using technology for their listening practices (comprehension). The challenges were digital literacy, psychological, listener factors, technology, English ability, tasks and activities, learning environment (Ha & Ngo, 2021).

Another finding found in this current study is that there is a significant difference in challenges faced by students according to their field of study. This is maybe due to the different level of English proficiency. As discovered by Teo, Abd Gani, and Ummah (2022), international students in Malaysia who sat for International English Language Testing System (IELTS), they faced different challenges in their listening comprehension. This was because their level of English proficiency differed as they needed to improve their listening knowledge and strategies (metacognitive, task, personal). Thus, it can be said that students are willing to use new approaches and methods in their learning process, however, it would be a bonus point for the educators if they could diminish the challenges that might be faced by the students.

5. CONCLUSION

Investigating the Computer-based Language Test (CBLT) and focusing on utilising data from students enrolled are crucial to improve and enhance teaching and learning of the English language. This is in line with Malaysian Education Blueprint 2013 – 2025 (Ministry of Education Malaysia, 2013) in which it emphasises the importance of students' mastery of the English language. The findings of the current study should enlighten the curriculum developers particularly in terms of assessments and practices to enhance educators' and students' experiences in familiarisation of the use of technology in the classroom. Consequently, the students are geared to become competitive and future-proof graduates in empowering and embracing the 21st century challenges. Producing future-ready graduates, fully equipped with required skills would not only help the local society in dealing with the 21st century challenges but also help the nation to maintain and increase its economic development through high quality employment and one of the skills is to be able to use and work with technology with ease.

5.1. Pedagogical Implications and Suggestion for Future Research

Based on the results obtained, it can be interpreted that the universities, the faculties and the educators need to ensure in preparing suitable and appropriate facilities for students to be more comfortable with the technology used in education especially in the execution of online assessments. Students nowadays would be considered as Generation Z (Gen Z). Gen-Z is a generation where they are being exposed to technology and these students who are in this category would be considered as tech-savvy (Salleh, Mahbob, & Baharudin, 2017). So, in order to cater to this group of students, the educators need to equip themselves with suitable and appropriate technology skills whether they like it or not. This is because if they could not prepare themselves with the necessary skills, it will surely affect the process of teaching and learning. Hence, the educators must understand the needs of this Gen-Z. Other than that, the universities and faculties need to also upgrade their facilities in terms of technology, in order to avoid and lessen the challenges that will be faced by both students and educators. These two important stakeholders need to help students and educators to be prepared in facing the challenges of the technology era. This is due to the current trend of education after COVID-19 pandemic affected this world. As for future research, other researchers are suggested to consider other stakeholders' perceptions such as the educators and the management of faculties or universities. This future study can also investigate from a qualitative research point of view for in-depth interpretation and explanation on online assessments. Thus, this study would help the other researchers to get the ideas for future research.

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