Using Arcs Model in Soliciting Learners' Motivation: Opportunities in Maximising Open and Distance Learning (Odl)

Fairuz Husna Mohd Yusof[1], Noraini Ahmad Basri[2], Siti Zarikh Sofiah Abu Bakar[3], Othman Ismail[4], Renda Lestari[5]

[1, 2,4]Authors' Academy of Language Studies, UiTM Shah Alam, MALAYSIA, [3]Siti Zarikh Sofiah Abu Bakar, Academy of Language Studies, UiTM Cawangan Johor, MALAYSIA, [5]Renda Lestari, STKIP Muhammadiyah Muara Bungo, INDONESIA.
Email: fairu305@edu.my, noraini013@uitm.edu.my, othmani@edu.my, sitiz148@uitm.edu.my, rendalestari95@gmail.com

Abstract
The coronavirus pandemic has seriously impacted all sectors around the globe and education is no exception. The outbreak has taught us to look into students' motivation level in acquiring the knowledge and skills during this time as they might be facing challenges. The purpose of this study is to investigate the motivational disposition of Applied Language learners, Academy of Language Studies, Universiti Teknologi MARA, Shah Alam, Malaysia during this pandemic. This is because motivation plays an important role in achieving academic goals and it involves students' participation in the learning process. The study employed a quantitative approach where a survey based on ARCS (Attention, Relevance, Confidence and Satisfaction) model by Keller was administered to the participants. The survey is also conducted to solicit information on their motivational influences during this ODL. To further understand what these learners are going through and help them to maximise the opportunities of ODL, the survey also included questions on factors that contribute to learners' motivation during ODL. The results highlight insight views and provide effective actions that can be taken and implemented by the management of the institution in providing conducive online education activities during the pandemic. It is also recommended that educators could adapt some of the suggested opportunities in their future ODL classes.
Keywords: Open and Distance Learning (ODL), Motivation, ARCS model, Opportunities, Online Learning

Introduction
Since the beginning of 2020, the deadly Covid-19 has spread rapidly around the world including Malaysia. The virus attacks every state and federal territory. Due to the vigorous

outbreak, the government rapidly made reforms and came out with ways to fight this pandemic. On 18 March 2020, Prime Minister Tan Sri Dato' Hj. Muhyiddin bin Hj. Mohd. Yassin declared the Movement Control Order (MCO) where all events, non-essential businesses, and schools were closed, as well as the roads were blocked. The coronavirus pandemic has seriously impacted all sectors and education is no exception. The outbreak has taught us to look into students' motivation level in acquiring the knowledge and skills during this time as they might be facing challenges ranging from accessing the broadband up to submitting their assignments. The purpose of this study is to investigate the motivational disposition of Applied Language learners (LG240), Academy of Language Studies, Universiti Teknologi MARA, Shah Alam Malaysia during this pandemic. This is because motivation plays an important role in achieving academic goals and it involves students' participation in the learning process.

Problem Statement
When the whole world was affected by Covid-19, all sectors were affected and education is no exception. All members of the society need to live in a new norm and adapt to the current situation. Thus, Open and Distance Learning (ODL) was selected to be the main platform of delivery among the higher learning institutions in Malaysia, including Universiti Teknologi Mara Malaysia. With this implementation, lecturers and students are expected to make a paradigm shift from face-to-face learning to virtual learning. All lessons and assignments are to be communicated through online, befitting the requirement of ODL. After more than a year of learning through ODL, students are getting used and adapting to this new norm of learning. Some students are adjusting well with this shift, allowing them to make the best out of ODL. In fact, their results are as good, if not better, compared to the semester of face-to-face learning. Nevertheless, there are some students who are having difficulties adjusting to ODL, causing them to feel demotivated in following the ODL classes and getting deteriorating results compared to before. There are many factors that could contribute to the different experiences. As stated by Musingafi et al (2015), ODL learners were challenged with a range of obstacles in their course of studies. Self-motivation is an important attribute to overcome challenges and could lead learners to self-direction in learning (Musingafi et al., 2015; Dunlap & Lowenthal, 2011). Thus, this study intends to look into students' motivation based on the ARCS model and to identify any opportunities for improvement of ODL in the future. The findings will benefit the educators in terms of providing suggestions on how they can improve their ODL lessons to retain or boost students' motivation for a greater learning experiences.

Research Questions and Objectives
The research questions of the study are:
　　1.What is the relationship between learners' motivation and ODL challenges during Covid-19 pandemic?
　　2. What are the challenges encountered by learners that may affect their learning motivation?
The objectives of the study are:
　　1. To examine the relationship between learners' motivation and ODL challenges during Covid-19 pandemic
　　2. To investigate challenges encountered by learners that may affect their learning motivation.

Literature Review

Open and Distance Learning (ODL)

According to Hogan (2012), Open and Distance learning (ODL) incorporates open and flexible learning through distance education and it is made possible through the fast advancement of technology. Yusof et. al (2021) stated that ODL allows a learning session to take place regardless of the limitation of physical distance of a student from the lecturer or teacher; hence to bridge this instructional gap, the use of technology is used specially to gauge the students in the lessons. In making ODL a success, various affordable technologies have been developed and embedded in the teaching approach such as learning management system (LMS), online surveys and online learning tools (Othman et.al., 2021). ODL is a platform in which classes are conducted online and a student-centred approach is an important factor to ensure the effectiveness of lesson outcomes (Nilson, 2013) Nevertheless, there are few most reported challenges that need to be faced by learners in experiencing ODL which are lack of sufficient time for study, difficulties in access and use of ICT, ineffective feedback and lack of study materials. In Fawaz et al. 's (2021) study, students raised their areas of concern which involved learning and evaluation methods, overwhelming educational and information technology, technical difficulties and task load. Khalil et. al (2020)'s study highlighted feedback from students in terms of challenges on technical (internet connectivity and poor utility of tools), methodological (content delivery), and behavioral (individual personality). However, the results generally indicated most students perceive synchronous online learning positively.

Challenges and Opportunities

The challenges of ODL are well-documented including the inability to instantly ask questions, to discuss, to highlight, to confer with classmates and they all contribute to a somewhat static experience. Even then, as many are experiencing during this pandemic, it is harder than usual for students to focus and remain disciplined (Feller, 2020). Modern digital technologies are an integral part of young people's activities around the world and these are under unprecedented challenge (Korze & Korze, 2020). With Covid-19 pandemic, it has become clearer that education system is susceptible to external dangers (Bozkurt & Sharma, 2020). The digital transformation of instructional delivery came with several logistical challenges and attitudinal modifications Ribeiro (2020). Student assessment during this pandemic on how districts can legislate unbiased and evenhanded grading policies based on these recommendations; First, pandemic-related anxiety will have negative effects on student academic performance. Second, academic performance of students might be affect by racial, economic and resource differences, and last the larger parts of instructors were not effectively ready to deliver high-quality instruction remotely. The challenges discussed here are limited to digital transformation of instructional operations during the period of Covid-19 pandemic. Nowadays, after the pandemic situation of Covid19, most of the academic institutions are giving synchronous online classes. Carey (2020 as cited in Dhawan, 2020) mentioned that the crucial issue is responding to the pandemic and most importantly providing quality online education and the mechanism of transmission from traditional learning to online learning.

Covid-19 may be the new beginning of online learning capabilities of the higher education sector worldwide. In addition, ODL has advantages that could be offered to students. First, students could study and work at the same time (convenience). Secondly, the time and place

are flexible and lastly, the students could find any resources easily. The current increase in its adoption by universities is born of their desire to direct their actions toward alignment with both local and global practices and policies to overcome the spread of Covid-19 pandemic. Universities and other educational platforms have responded to the pandemic with quick digital transformation of their educational activities. Apart from the educational and economical roles of universities, Wang and Zha (2018) also recognized the social roles of universities as the world battle for the eradication of the pandemic. According to the above benefits of ODL, we expect that the Higher Education and universities will have to accept online learning as part of the teaching processes, and this in turn will lead to lecturers having to consider which part of the educational curriculum will be presented through classroom lectures and any part that will be presented via the Internet.

Motivation
Numerous studies have been conducted in discovering challenges by ODL. Before MCO, most classes blended online learning with physical classroom and consultations. However, during MCO, the approach was online learning in full mode and the limitation of face-to-face communication has resulted in lack of motivation and confidence among learners (Almaiah et al., 2020). Wettergren (2012) stated that ODL can cause loneliness in students where they are expected to keep motivating themselves and the responsibility to deal with the challenges are shouldered upon them. A study by Browning et. al (2021) found that the most common changes in how students felt compared to before the pandemic were increased lack of motivation, anxiety, stress, and isolation. Motivation is one of the aspects that need to be considered to ensure the success of online teaching and learning as the drastic shift from face-to-face learning to ODL has created greater flexibility in content delivery (Harandi, 2015). Motivation is important in all aspects of life for every individual that come in two types which are intrinsic and extrinsic. Intrinsic motivation comes from within the student him/herself while extrinsic motivation refers to external motivation provided by other parties (Wettergren, 2012). Motivation has a great significance in student performance and continuity (Murphy, 1989; Oxford et al., 1993; Chan et al., 1999 as cited in Prakash, 2018). According to Arumugam (2018), sustained motivation is vital in providing endurance for students to monitor their overall learning, complete challenging tasks and strive for excellence. Rodovan (2011) stated that students who possess more intrinsic motivation, put high value in their learning, and are confident with their ability would be able to achieve greater academic success This is because they can handle distractions better, give higher concentrations in their learning and achieve better grades

The use of technology in e-learning should be a device that can boost students' motivation (Harandi, 2015). According to Wieking (2016), research conducted in technology rich classroom environments suggested that students who are assisted by technology were more engaged and invested in their learning as technology generates an environment that supports synergy, collaboration, and dynamic, hands-on learning. Nevertheless, not all studies favoured this result as Granito and Chernobilsky (2012)'s study found that not all students are motivated to learn using technology as those who chose using technology to complete their projects scored better than those who were made compulsory to use technology. Thus, not all students may enjoy studying through ODL which highly depends on technology as some may find it difficult.

ARCS Model

According to the Attention, Relevance, Confidence, and Satisfaction (ARCS) theory of motivation introduced by John Keller, a learner's motivation can be stimulated through instruction by creating conditions that will promote the learners' interest in order to achieve their goal (Keller, 1987). According to Leong (2015), since there has been a lack of attention and resources in developing the motivational aspects of learning, Keller introduced a systematic approach for integrating motivation into the instructional design in answering the question of "how to develop a learning environment that will stimulate and sustain learners' motivation" (Keller, 2010, p.194). The ARCS model highlighted four categories of motivational concepts based on a comprehensive review of the literature on motivation which are Attention, Relevance, Confidence and Satisfaction. According to Keller (2010), 'Attention' refers to the learners' interest towards something, 'Relevance' is the learning process that should reflect its usefulness for learners so that learners will be able to relate the knowledge to the real world, 'Confidence' refers to success expectation of the learners so that they control their learning and 'Satisfaction' highlights that there is a direct relation between motivation and satisfaction. For this study, the samples were and had been involved with Open and Distance Learning for a few semesters. Since some studies have reported on students' lack of motivation while experiencing ODL, this study intended to look into students' motivation on their experience with ODL based on the ARCS model during the pandemic covid-19 in Malaysia.

Methodology

This study employed a quantitative approach. The quantitative data were obtained from 115 undergraduate students of English for Professional Communication, Universiti Teknologi MARA. These students were selected based on purposive sampling. Using a survey with a set of questionnaires as an instrument, the data was collected through the use of Google Form. The participants were asked to answer a set of online questionnaires consisting of three sections which are demographic profile and their motivation based on the ARCS model and related ODLquestions. The questions were in the forms of Likert Scale (scale 1-5) and multiple-answer questions. The data were then captured as Google Form responses. The data were then analysed using SPSS application for Spearman's correlation analysis to address RQ 1 and frequencies to address RQ2 respectively.

Results and Discussions

Findings

This section highlights the results of the study based on the research questions.

RQ1: What is the relationship between ODL and learners' motivation (ARCS) during Covid-19 pandemic?

Table 1 shows the overall mean distribution of ARCS; Attention (*M*=3.40), Relevance (*M*=3.54), Confidence (*M*=3.32) and Satisfaction (*M*=3.43). Relevance recorded the highest mean while Confidence stated as the lowest among the four variables.

Table 1 *:*
Descriptive Statistics (Mean Distribution of ARCS)

	Statistic	**Std. Error**
ATTENTION	**3.4019**	**.04394**
RELEVANCE	**3.5420**	**.05342**
CONFIDENCE	**3.3227**	**.04048**
SATISFACTION	**3.4326**	**.0732**

Spearman's Correlation analysis was employed to analyse the data as it is believed to indicate that high ranks of one variable tend to coincide with ranks of the other variables.

Table 2 *:*
Correlations between A,R,C,S and ODL Challenges

			ATT	REL	CON	SAT	CHALL
Spearman's rho	ATTENTION	Correlation Coefficient	1.000	.623**	.537**	.584**	.024
		Sig. (2-tailed)	.	.000	.000	.000	.799
	RELEVANCE	Correlation Coefficient	.623**	1.000	.388**	.683**	.049
		Sig. (2-tailed)	.000	.	.000	.000	.600
	CONFIDENCE	Correlation Coefficient	.537**	.388**	1.000	.469**	-.064
		Sig. (2-tailed)	.000	.000	.	.000	.498
	SATISFACTION	Correlation Coefficient	.584**	.683**	.469**	1.000	-.025
		Sig. (2-tailed)	.000	.000	.000	.	.791
	CHALLENGES	Correlation Coefficient	.024	.049	-.064	-.025	1.000
		Sig. (2-tailed)	.799	.600	.498	.791	.
		N	115	115	115	115	115

p<0.05

As presented in Table 2, Spearman's Correlation test showed that there is no significant relationship between the students' motivation (A,R,C,S) and the challenges experienced by them in ODL classes with (Attention; rs = 0.24, p = 0.799), (Relevance; rs = 0.49, p = 0.600), (Confidence; rs = -0.64, p = 0.498), and (Satisfaction; rs = -0.25, p = 0.791).

Relationship between Attention and ODL Challenges
Based on this finding, the relationship between learners' motivation in terms of attention and challenges that learners faced during ODL is not significant. This is probably because students' attention in online classes managed to be gained and sustained using various materials available or provided online. The usage of Google Meet, Zoom and Webex applications, which provides the platform for synchronous classes, made it possible for lecturers to present their materials and gain the learners' interests for the lessons. Besides that, the availability of a range of e-learning applications allows the lecturers to be more creative in their lesson presentations and activities. As cited in Al-Kumaim (2021), previous research showed that positive and appealing design of online learning contents could significantly increase learners' motivation levels and facilitate learning. Content that is rich in visual-aided presentations using examples, mind-maps, diagrams and so forth, has great potential in ensuring learners' ability to acquire the needed skills (Basri, Ismail, & Mahmud, 2021). Nevertheless, if the presentation of online content failed to gain learners' attention, the learning process could

be negatively impacted (Chiu & Churchill, 2015). Based on the questionnaire, a majority of learners (53.9%) The variety of notes, exercises, illustrations and other course materials during ODL helped to keep their attention during ODL. 62.6% of the learners strongly agreed and agreed that the different applications needed to be utilised during ODL facilitate their learning skills during ODL.

Relationship between Relevance and ODL Challenges

The finding in the Table 2 shows that there is no significant relationship between learners' motivation in terms of relevance and challenges faced by learners during ODL. This is probably most likely because learners were clear on how ODL would facilitate them in learning the content of their lessons and concurrently achieving the expected lesson outcomes. Besides that, since ODL has been acknowledged as the main mode of learning during this pandemic, learners were most probably adapting and accepting the use of ODL for their learning. As stated by Vloreen and Ellen (2021), both instructors and learners are left with no options but to employ ODL as the replacement of the conventional face-to-face method during the Covid-19 pandemic. Based on the findings, 53.1% of the learners strongly agreed and agreed that the variety of notes, exercises, illustrations and other course materials during ODL helped to keep their attention during ODL.

Relationship between Confidence and ODL Challenges

The finding in Table 2 reveals that there is no significant relationship between learners' motivation in terms of confidence and challenges faced by learners during ODL. This is probably because most learners, in later semesters especially, had already been exposed to online learning prior to adapting ODL in full mode. Even before the emergence of covid-19, most learners in Malaysia had been exposed to online learning in which some of the lessons would incorporate the use of laptops, mobile phones, computers (technology tools) and e-learning applications (content). As stated by Mei et al (2017), the Malaysian government has embarked on a nationwide project that expects students and teachers to teach and learn in a virtual learning environment. They are getting used to using the applications for communication and presentation if not improving their skills already. This probably contributes to higher levels of confidence in learning through ODL (Zulaikha et al., 2020). However, it is important to note that 73.1% of the learners strongly agreed and agreed that the course materials during ODL were more difficult to understand than they expected. 54.5% of the learners also felt that the assignments assigned during ODL were too difficult. This is probably because of the lack of physical interaction with lecturers during ODL that caused students to have difficulties in understanding the materials (Ferri et al., 2020).

### Relationship between Satisfaction and ODL Challenges

The finding in Table 2 reveals that there is no significant relationship between learners' motivation in terms of satisfaction and challenges faced by learners during ODL. This is probably because learners are satisfied with the expectations on ODL. In addition, learners may have been satisfied with their learning experience and academic achievement during ODL which may have contributed to this finding. They also may have fulfilled the self-expectancy that they had about themselves during ODL. The finding is supported by Jegatheson et al (2018)'s study which revealed a significant correlation between learners' performance and satisfaction with learning materials, assessment management and academic facilitation during ODL. However, based on the findings from the survey, 51.3% of

the learners felt that they did not enjoy their learning through ODL and it did not stimulate their learning.

RQ2: What are the challenges encountered by learners that may affect their learning motivation?

Based on Figure 1, the biggest ODL challenge encountered by the students was Internet Problems (101, 87.8%). This is probably because learners were having difficulties in getting a good network and connectivity at their respective homes. Some learners reside in rural areas causing difficulties for them to get good access to networks and connectivity. Even if they reside in cities, learners may face financial problems to buy data for their Internet usage. This is because learners come from different social backgrounds, hence we should not expect the same acceptance and readiness for ODL from all of them. The finding was followed by Technical Problems (6, 5.2%), Worries on ODL (4, 3.5%), Limited Learning Reference (2, 1.7%) and the lowest frequency shared by Physical and Mental Issue and Non-conducive Environment with (1, 0.9%) respectively. The other challenges also showed that different learners may face different challenges at home during ODL.

Figure 1: Challenges of ODL faced by learners
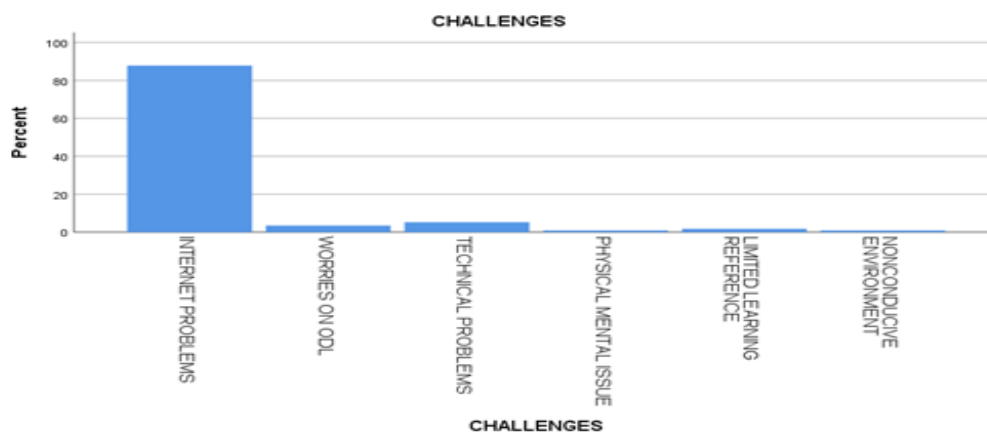
Recommendations and Conclusion

From the result of the study, it is indicated that the `Internet problems' is the main crucial challenge that was faced by a majority of learners. In addressing this concern, it is recommended for the management of the university to take this matter into serious consideration. One of the ways that had been taken by Universiti Teknologi Mara was by allowing its students who were having the issue of Internet networks and connectivity to be present at campus during the semester. By doing this, learners could experience their learning without Internet problems in a conducive environment provided by the university. For lecturers, they were always reminded to provide options for students 1) to access the learning contents and materials such as by recording their lessons and posting them on Google Classroom (or any preferred learning management system), 2) to submit their assignments using alternative platforms. Lecturers are also recommended to be more considerate towards students when it comes to deadlines of assessments and time allocated for completion of assignments. Besides that, lecturers could get some feedbacks from the students on their well-being and opinions on improving the teaching approaches based on the students' preferences. This is to ensure that students' motivation could be retained and

maintained if not boosted throughout the semester. In a way, this also caters to students' worry of ODL which may affect their mental health. The study finding of no significant relationship between students' motivation and the challenges they faced during ODL highlights that most students probably are not motivated to learn during ODL. Thus, it is suggested that to ensure a more effective teaching and learning process to take place, institutions should employ face-to-face and online learning as mode of delivery instead of depending on ODL per se in the future. 'Hybrid learning' could be the future of mode of teaching and learning.

References
Al-Kumaim, N. H., Alhazmi, A. K., Mohammed, F., Gazem, N. A., Shabbir, M. S., & Fazea, Y. (2021). Exploring the Impact of the COVID-19 Pandemic on University Students' Learning Life: An Integrated Conceptual Motivational Model for Sustainable and Healthy Online Learning. *Sustainability*, 13, 2546. https://doi.org/10.3390/ su13052546

Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Educ Inf Technol* 25, 5261–5280 (2020). https://doi.org/10.1007/s10639-020-10219-y

Basri, N. A., Ismail, O., & Mahmud, M. M. (2021). Elements in multimedia interactive package (MIP) production to facilitate critical thinking acquisition in ESL reading. International *Journal of Academic Research in Business and Social Sciences, 11*(1), 633–644.

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. Asian Journal of Distance Education, 15(1), i-vi.

Fawaz, M., Al Nakhal, M., & Itani, M. (2021). COVID-19 quarantine stressors and management among Lebanese students: A qualitative study. *Current Psychology,* 1–8.

Feller, R. (2020) COVID-19 is transforming education for all: Fast tracking the shift to distant learning. https://www.atlanticcouncil.org/blogs/newatlanticist/covid-19-is-transforming-education-for-all-fast-tracking-the-shift-to-distantlearning/

Chiu, T. K., & Churchill, D. (2015). Exploring the characteristics of an optimal design of digital materials for concept learning in mathematics: Multimedia learning and variation theory. *Comput. Educ*., 82, 280–291.

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems, 49*(1), 5-22.

Dunlap, J. C., & Lowenthal, P. R. (2011). Learning, Unlearning, and Relearning: Using Web 2.0 Technologies to Support the Development of Lifelong Learning Skills. E infrastructures and technologies for lifelong learning: Next generation environments. IGI Global. (pp.292-315).

Granito, M., & Chernobilsky, E. (2012). The effect of technology on a student's motivation and knowledge retention. *Northeaster Education Research Association (NERA) Annual Conference*. Retrieved from http://digitalcommons.uconn.edu/nera_2012/17

Harandi, S. R. (2015). Effects of e-learning on Students' Motivation. *Procedia - Social and Behavioral Sciences* 181, 423 – 430

Hogan, R. (2012). Transnational Distance Learning and Bulding New Markets for Universities. United States of America: Idea Group.

Keller, J. M. (1987). Strategies for stimulating the motivation to learn. Performance and Instruction Journal, October, 1–7. Keller, J. M. (2010). *Motivation design for learning and performance: The ARCS model approach*. New York, NY: Springer.

Khalil, R., Mansour, A. E., Fadda, W. A., Almisnid, K., Aldamegh, M., Al-Nafeesah, A., & Al-Wutayd, O. (2020). The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: A qualitative study exploring medical students' perspectives. *BMC Medical Education, 20*(1), 1–10.

Korze, D., & Korze, A (2020) Young People and Digital Technologies. *International Journal of Youth Economy*, *4*(1), pp. I-III.

Mei, L. C., Su, L.W., Ayub, A. F., & Mahmud, R. (2017). Teachers' perceptions of e-learning in Malaysian secondary schools. *Malaysian Online Journal of Educational Technology, 5*(2).

Musingafi, M.C. C., Mapuranga, B., Chiwanza, K., Zebron, S. (2015). Challenges for Open and Distance Learning (ODL) Students: Experiences from Students of the Zimbabwe Open University Journal *of* Education and Practice , v6 n18 p59-66

Nilson, L. B. (2013). *Creating self-regulated learners: Strategies to strengthen students' self-awareness and learning skills. Sterling, VA*: Stylus Publication.

Othman, J., Kadar, R., Umar, N., & Ahmad, N. (2021). The effect of students performance at Higher Education Institution with open and distance learning (ODL) methods. *International Journal of Academic Research in Progressive Education and Development*, 10(2), 556–569.

Prakash, V. A. (2018). *Academic excellence, sustained motivation and ODL students.* 32nd Asian Association of Open Universities Annual Conference, 24 – 26 October 2018, Hanoi, Vietnam.

Radovan, M. (2011). The relation between distance students' motivation, their use of learning strategies, and academic success. *Turkish Online Journal of Educational Technology. 10*(1): 216–22.

Ribeiro, R. (2020). How university faculty embraced the remote learning shift. *EdTech Magazine*.

Vloreen, N. M., & Chung, E. (2021). University Students' Perspectives on Open and Distance Learning (ODL) Implementation Amidst COVID-19. *Asian Journal of University Education (AJUE)*, 16(4), December 2020 (Special Issue)

Wieking, B. A. (2016). *Technology integration and student learning motivation* (Master's thesis, Northwestern College, Orange City, IA). Retrieved from http://nwcommons.nwciowa.edu/education_masters/5/

Wettergren, G. (2012). Factors affecting student motivation in distance education. Stockholm University, Department of Computer and Systems Sciences. .Available: https://spidercenter.org/wp-content/blogs.dir/187/files/2012/01/FinalICDEBali2012Factorsaffectingstudent.pdf

Yusof, F. H. M., Bakar, S. Z. S.A., Amat, D. W., Othman, D., Sumery, Z., Sarijari, H., & Qomariyah, A. (2021). ESL teaching: Preferences on the use of e-learning apps in maximising effective teaching and learning experiences for open and distance learning (ODL). *International Journal of Academic Research in Business and Social Sciences*, 11(6), 1123–1139.

Khairuddin, Z., Arif, N. N. A. N. M., & Khairuddin, Z. (2020). Students' Readiness on Online Distance Learning (ODL). *Universal Journal of Educational Research*, *8*(12), pp. 7141 - 7150, 2020. DOI: 10.13189/ujer.2020.08128