

THE ROLE OF ATTENTION IN ESL CLASSROOM IN OPEN AND DISTANCE LEARNING SETTING

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Abstract: *The present paper reviews previous researchers' discussions on the role of attention in second language learning, and its significance and limitations in open and distance learning. Certainly, teachers in ESL classrooms make instructional decisions to optimally harness their learners' attention. That said, to what degree does attention contribute towards learning? Secondly, how is attention influenced by open and distance ESL learning (ODL)? Thirdly, what are the potential distractions that attenuate or divert attention in the ODL setting? Amid the recent global COVID-19 pandemic outbreak, school attendance has been restricted for most students worldwide and online learning has become the only available option. In Malaysia, ODL has been extensively used, especially at the higher education level, and it is expected to be used toward the year's end irrespective of the academic communities' readiness. Additionally, the online learning method known as flipped classroom has been applied to complement ODL. In the present review, the authors sought to highlight the gap in discourse on the role (and limits) of attention during ESL learning in the ODL setting in Malaysia, and outline the potential distractions that occur during ESL lessons in the newly pandemic-adapted context.*

Keywords: *attention, second language acquisition, English as a second language, open distance learning*

Introduction

Attention is an important language learning factor as learners need to attend for learning to occur (Al-Hejin, B., (2003), Gass, S. (1988), Hlas, A. C., Neyers, K., & Molitor, S. (2019), Schmidt, R. (2001). It is a process that encodes language input and keeps it active in working and short-term memory before it is stored and later retrieved from long-term memory (Robinson, 2003). Earlier SLA researchers agree that input is a significant part of language acquisition (Gass, S. (1988), Wang, W. (2015). They have noted that input occurs by noticing, which includes the detection and subsequent registration of stimuli into memory (Gass, S. (1988), Wang, W. (2015). According to Schmidt (1995), a prominent researcher who investigates the role of attention in SLA, noticing is a crucial requirement for learning a second language's (L2) grammatical forms. Noticing is characterised by the cognitive function of detection and awareness or consciousness. Without noticing, there is no formation of mental representations. In contrast to the way young children learn and acquire their first language without awareness, adult learners of a second language are often unable to learn L2 through

detection alone. Due to the vital role of detection and awareness in managing attention, it is a struggle for both teachers and learners to ensure significant implications for language classrooms.

Although the role of attention in SLA has been an important area of study among earlier researchers, its influence on the learners in online and distanced learning settings is contemporary. Reference (Paepe et al., 2017) in 2019 mentioned that although schools and universities worldwide were slowly starting to apply online learning, the pandemic outbreak necessitated the full implementation of online learning in order to avoid interruption to the education system. Although various types of online learning platforms had been accessible preceding the COVID-19 outbreak, they have become common tools following the outbreak. Platforms such as Zoom, Google Meet, Microsoft Teams, Blackboard (Chakowa, 2018) and Google Classroom have been used as virtual classrooms for assignment submissions, tests, quizzes, and for teacher-student communication. Nevertheless, the general concern remains constant: Are learners able to give their full attention to the lesson at hand, and does the change in learning setting impact attention span?

Research Objectives

Attention is generally regarded as a limited mental capacity (Tomlin & Villa, 1994) in which a person is restricted in how much they can pay attention to a limited range of stimuli at a given time (Hlas et al., 2019), and must therefore focus concentration selectively or strategically (Robinson, P. (2003), Schmidt, R. (2001). Reference (Robinson, 2003), for example, referred to attention as a variable focus 'spotlight' which can be narrowed and focused, or broadened and diverging depending on what the task conditions require. The task conditions can be perceived differently by different classroom learners and it may make less or more demands on attention depending on the available amount of attentional resources that a given individual has (Robinson, 2003). Nevertheless, learner attention fluctuates during class. This knowledge benefits teachers in so far as they can appreciate the pedagogical implications and engender instructional decisions accordingly. However, in the ODL context, it has raised the question as to whether learners' attention fluctuates in a manner similar to that of the physical classroom setting, and whether learners can maintain attention in the online setting. There is a noteworthy online learning setting known as flipped classroom and it is used to complement ODL. This has raised an additional question: What is the influence of flipped classroom on learners' attention during ESL instruction in the ODL setting? This question notwithstanding, the present paper is limited to coming to understand ESL learners' attention and how it is influenced by the ODL setting. The relationship matters are left to be investigated in future research. In any event, there are not enough discussions about attention during online distance ESL class to have a basis of comparison. Therefore, this discussion centers on learners' attention capacity in ESL physical and ODL classes. It also considers the possible distractions in the ODL setting relative to physical face-to-face classrooms. As the authors sought to highlight the gap in discourse on the role of attention in ESL learning and its limitation in ODL setting in Malaysia, a literature review from previous studies were carried out to achieve the following objectives:

1. To understand the extent to which learners' attention contributes towards ESL learning.
2. To discover how the ODL setting impacts attention during ESL learning. To characterize the drawbacks of ODL that can attenuate attention

Methodology

The article review began with search keywords including attention, ESL learning, and SLA. The first attempt for search string in Scopus using keyword search TITLE-ABS-KEY resulted in articles from various fields of study but were mostly unrelated to the present study's subject. Therefore, the next attempt implemented on TITLE only. Consequently, 12 documents were found but only 6 were topic relevant. In the beginning, the focus of the search centered on the role of attention on English as a second language (ESL) and second language acquisition (SLA) was added to enhance the search result. The word 'attention' is used widely in various research usually 'to bring readers attention' to the key elements of a research. Therefore, running a search string for the word 'attention' in the abstract is ineffectual. The articles found at this stage were analyzed to understand the degree to which learners' attention contributed towards ESL learning.

The same step for the article search was repeated in the exploration for the previous discussions on the influence of the ODL setting on attention during ESL learning. ODL is broken down into related words including online learning and virtual learning.

Findings and Discussions

In general, there are three stages of information processing wherein attention operates, and they correspond to three themes in attentional research and theory recommended by (Sanders, 1998), (Sanders & Neumann, 1996) and (Sergeant, 1996). The broad terms for each stage are known as input and output, and the additional middle process is known as cognitive processes. Input, cognitive processes, and output are recognized in the generic model of human information processing respectively as perceptual encoding, central processing, and responding. Following are the activities at each stage:

1. Input stage: Auditory and visual information intake and processing (perceptual encoding)
2. Cognitive processes: Central control and decision-making functions, including allocation of attention to competing task demands, and automatization (central processing)
3. Output stage: Response execution and monitoring via sustained attention (responding)

Each stage is related to three uses of the attention concept. The first use of the attention concept involves describing the use of attention for information selection. In other words, we pay attention to things that we choose for further processing. The second stage describes the competence of attentional resources. This suggests that there are times when learners are able to pay a lot of attention to a task and there are times when they cannot. The third use of the attention concept applies to describing the effort involved in sustaining attention to a task. Attention lapses as discussed by (Hlas et al., 2019) describes the learners' ability to maintain attention. There are distinct uses of the concept of attention, but each one can operate in conjunction with the other.

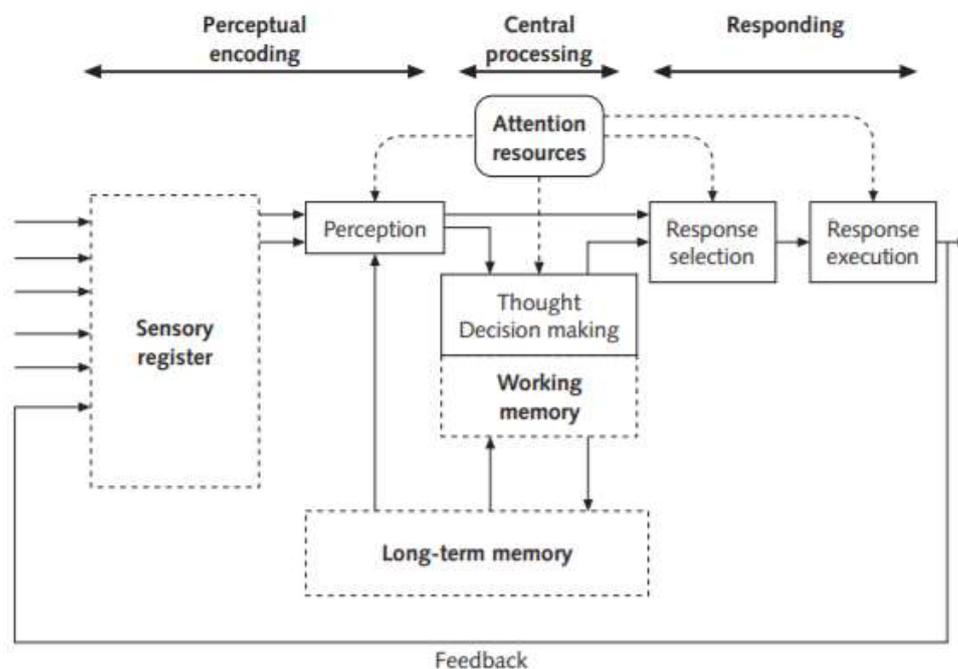


Figure 1: A generic model of human information processing with three memory systems.

Many researchers in the SLA area have begun to theorize and operationalize the attentional demands in SLA learning, and to examine their influences on language learning, comprehension, and language production.

The contribution degree of learners' attention towards ESL learning

First and foremost, (Leow, 2015) stated that attention and awareness in second language learning have been two constructs intensely discussed (whether explicitly or implicitly) in second language acquisition (SLA) studies. There are various empirical studies attempting to investigate the roles of these constructs in the L2 learning process, despite them being internal processes, making the methodological procedure of eliciting and interpreting data challenging. Previous studies have been conducting replications of studies examining the roles of attention and awareness including the lack of both in the second language learning process. Research replications are beneficial for supporting and also refuting the findings in previously published SLA literature. Additionally, it strengthens the understanding of the relevant variables.

While (Leow, 2015) focused on both attention and awareness as constructs of internal process in SLA, the present review draws readers' interest to the role of attention. Therefore, it is significant to recognize the prominent theories of attention and learning gains in SLA. More recent research has been using Schmidt's (1990) noticing hypothesis and Robinson's hierarchical memory model (1995, 2003) as the groundwork of the studies. (Dolgunsöz, 2015), for example, used Schmidt's and Robinson's to discuss a method to measure attention in SLA using the eye-tracking technique. It was hypothesized in that study that vocabulary learning and attention are closely related. The researcher explained that learners spent more time on unknown words than the familiar ones. Other than that, it was concluded that there was a positive correlation between attention and learning gains; it was due to increased fixation values (i.e., more time) spent on unknown words increasing the probability of further recognition.

Reference (Valeo, 2013) asserted that a widely accepted theoretical premise in SLA research holds that learners must notice language form for them to learn it. The researcher further explained that the integration of attention to language form with attention to content is a worthy pillar for language instruction. Although empirical research has revealed the effectiveness of this combination, (Valeo, 2013) reported that there has been little research on how learners attend to form in content-based language contexts. Using a pre-test/post-test/delayed post-test design to assess language outcomes, content outcomes, and retrospective recall protocol, learner attention to language and content was investigated. Although the researcher confirmed that the participants were able to identify the focus of the instruction they received in reference to content or language, the study reported no relationship between awareness of language and language outcome. The findings in reference (Valeo, 2013) thus supported that learners' attention contributes towards ESL learning.

Additionally, learner attention lapses have also been discussed in the study of the role of attention in SLA/ESL. Reference (Hlas et al., 2019) conducted a study to understand the factors influencing attention in conventional face-to-face ESL lectures at higher education level. Traditionally, lectures are held in physical classrooms or halls. In their study, (Hlas et al., 2019) discussed learner attention lapse in a physical lecture and found two conditions that seem to contradict each other. Firstly, learners' attention lapses increase as the lecture progresses (Risko et al., n.d.) and secondly, learners are unlikely to pay attention during the first minute while they are settling down (Bunce et al., 2010). Reference (Bunce et al., 2010) also reported that the first 10 minutes of class are the most valuable for holding learner attention.

Based on the discussion thus far, it can be concluded that learners' attention provide contributes to ESL learning. There are additional factors manipulating attention lapses such as learners' readiness to begin paying attention, the duration of the lecture, and the lecturers' ability to sustain learner attention throughout the ESL lecture in a physical and face-to-face class. Now the question is, which situation is relevant to learning in the ODL setting? Can Schmidt's noticing hypothesis and Robinson's hierarchical memory model be applied to ESL learning in the ODL setting? There is a need for understanding the nature of the ODL setting, its strengths and weaknesses as this is important knowledge for the lecturers in assisting them in making the best instructional decisions to optimally harness learners' attention.

The influence of ODL setting on attention during ESL learning

It has been hard to find an article on the influence of attention on ODL in second language classes. Previous studies such as from (Hildebrandt, 2020) and (Paepe et al., 2017) have centered on the role of teachers, the integration of online second language learning and the maintenance of online social presence. ODL includes a different mode of online teaching and real-time webinars have been using applications like Zoom, Google Meet, Google Classroom and Webex Meet. There has also been an option for asynchronous classes where instructors provide the materials, lecture note, tests, assignments and lecture videos for students to access at any time. This type of learning integrates into the flipped classroom, but with full teacher-student engagement through online applications. Students may be given a timeframe for each lesson or assignments, and within a certain timeframe they may be required to connect (e.g., once or twice a week).

Despite the emergence of various online teaching and learning apps, little attention has been given to teacher perceptions' of online language teaching (Paepe et al., 2017). The researchers have mentioned that understanding teacher perception is vital as it influences instructional

design, teaching methods, and ultimately the learning experience. Since the technology has been applied to online education, SLA researchers have conducted studies to examine the effectiveness of these communication tools in teaching second languages. Also studied is the challenges of online teaching. Reference (Paepe et al., 2017) has identified four fundamental roles that are required by online language instructors to ensure successful language learning. These are instructors as practitioners, developers, researchers and trainers. The study's findings indicated that student engagement was perceived difficult during the online class. Additionally, collaboration among students was impeded. They suggested that teachers when conducting online classes need to make a shift towards an individualized, learner-centered teaching model in order to achieve the learning objective. In 2018, a research duo, Azhar and Iqbal in reference (Azhar & Iqbal, 2018), conducted research on 12 higher education teachers who had implemented Google Classroom for a minimum of one semester. The findings revealed that Google Classroom was perceived as only a facilitation tool used for managing documents and basic classroom management, with no significant impact on teaching methodologies. The teacher respondents stated in the interview that it lacks a user-friendly interface resulting in inefficiency. Future studies should aim to take the students' perspective into account. However, as mentioned, the study in question was conducted in 2018, which was more than a year before the COVID-19 outbreak remarkably changed the world of education. Therefore, the findings might have been influenced by the limited exposure to the real use of Google Classroom and other Google Education tools. From early to mid-2019, the transition from physical to fully online classes was observed and users have been getting more familiar with the tools. The respondents' perceptions towards Google Classroom and such might have changed due to the increasing use of these tools.

Other than teachers' perspectives on the use of the online platform for a second language class, there have also been discussions on the ability to instill motivation and engagement among online language learners (Hildebrandt, 2020). Reference (Bozkurt & Ataizi, 2015) described the online platform as a dynamic structure that changed the rules of the game in which, according to (Hildebrandt, 2020), technology is turned into a reliable environment that can support language acquisition. Reference (Sun et al., 2013) reported that several online applications that utilized peer feedback in second language writing like Wiki's, blogs, and discussion forums reported positive outcome with language learners. Theoretically, the availability of online platforms would be beneficial to L2 learners as they have more access to other language users to practice the target language orally or to discuss mutual interests (Bozkurt & Ataizi, 2015). The researchers added that with the application of good instructional design practices, the access to other language users to practice their target language can further support the learners' motivation and engagement. However, researchers have argued that there is insufficient research to support the use of the technology for beginning language learners despite evidence that supports improvements in reading and writing (Derakhshan et al., n.d.). And most significantly for this study is to identify if there is a significant influence of ODL setting in ESL learning on learners' attention, while further research is required to investigate whether moving towards individualized and learner-centered method during ODL yields a positive impact on learners' attention.

Undoubtedly, in order for learning to occur, there must be instructor-learner collaboration/interaction. In light of this, (Garcia et al., 2015) asserted that learners must be provided with opportunities to communicate with people, encourage group discussions and build communities of practice so they can organize themselves online as part of the educational design, which can help to harness and sustain their attention.

The limitations of ODL that attenuate attention

E-learning has been a trend in higher education institutions. It has provided as an alternative approach to the conventional classroom method. Several institutions have been promoting blended learning, a mix of physical and online teaching in order to keep up technological advancements so their students will be technologically literate. Besides that, online learning became a way to overcome the necessity of maintaining physical distance and students from different parts of the country and the world can be brought together in a collaborative manner. Krashen's Second Language Acquisition (SLA) Theory was frequently referred to by researchers in online language studies. According to the theory, the acquisition of any language happens subconsciously while the process of learning is conscious. Reference (Hildebrandt, 2020) described that the learning of L2 depends heavily on three elements; the learning structure, the environment, and comprehensible input from peers, or in the formal setting wherein language learning occurs.

In the year 2020, we have observed the transition of classes in all schools and universities in Malaysia from being a physical (or blended learning) to being a fully online classroom. As previously mentioned, researchers [5, 18] noted that learners' attention lapses increase as lectures progress, and that it is unlikely for them to pay attention during the first minute of the lecture, but does that also occur in an ODL setting? And does the golden ten minutes at the beginning of a physical lecture also occur in during online class? Getting learners' attention in a conventional face-to-face setting requires instructors to understand the role of attention and how it works in order to maximize learning as studies have shown that learners' attention contributes towards ESL learning. However, learning ESL in a full ODL setting has engendered a different set of challenges on both students and instructors. For ODL students, this includes losing interest in the course due to demotivation and anxiety. Nevertheless, there are several activities that can assist students in ODL setting such as initiating peer student-instructor interaction, engaging peer-to-peer collaboration, and encouraging active learning. ODL has to apply a learner-centered approach to promote self-reflection and the co-construction of knowledge in addition to developing critical thinking and higher order thinking skills (Murugaiah & Thang, 2010). These researchers explained that instructors need to play a major role in ensuring the success of online learning including designing activities that productively engage students. Furthermore, instructors in this environment must motivate and cultivate self-directed students.

There are tremendous benefits to ESL learning including, among other things, improved students' awareness of their learning processes. This consequently helps them to be more dedicated students. Nevertheless, ESL instructors are required to adapt rapidly to a fully online and distance learning format in response to the closure of education institutions during the pandemic (Hildebrandt, 2020). Still, there are knowledge gaps in the literature pertaining to the use of online platforms in teaching ESL. Whether it is the production stage, learning skill development, or relating to the cultivation of learner collaboration [6, 8, 12]. Reference (Bozkurt & Ataizi, 2015) agreed that "language acquisition is the process of mastering language through natural ways" wherein language is communicated and exposed in a natural context. Based on this definition, additional challenges present themselves to instructional designers and L2 teachers as they need to support natural and structured language learning in the absence of face-to-face interaction. Researchers like [10, 12] stressed the significance of the learning structure, the environment, and the opportunities to gain input from other learners. The researcher argued that the online (vs. conventional) setting is not as conducive for L2 learners. Other barriers to ESL learning in the ODL setting include the absence of technical skills and

potential access to technology, economic problems, and other demographic issues such as age and gender (Hildebrandt, 2020). Additionally, with the rapid emergence of various applications to aid in online teaching and learning, teachers and students are exposed to negative consequences like burnout due to the expectation that they would be constantly available, and able to respond to questions and interactions instantly. However, this notion of burnout would require further research as it is important to verify perceived setbacks and researchers need to discuss ways to deal with challenges to promote effective and reliable learning using online platforms.

Conclusion

To complement ODL, flipped classroom serves as an online teaching and learning method that helps to reduce teacher and learner burnout due to the overwhelming crush of online applications pushed onto us since the pandemic. Flipped classroom (also known as the inverted classroom), was originally designed for the student review of lecture materials or homework prior to class, while in-class time is dedicated for discussion, interactive exercises, or independent work that requires the teachers' assistance and explanation. In other words, the purpose of flipped classroom was to let learners review materials in the form of recorded lectures, curated videos, video broadcasts or reading assignments beforehand, so information could be expanded upon and discussed further during in-class time; making it a blended learning process. However, since early 2020 where learning has been mostly open and distance via online approach, the flipped classroom has been expanded into an alternative to synchronous online learning. It supports asynchronous online learning, and therefore, its use should be further explored to avoid teacher/student burnout. Learners' attention in synchronous learning via ODL should be examined in order to find the best options for language instructors in teaching English as a second language and to maximize the learners' attention and its influences on language input and production. Online language learning has the dynamic structure but it has to be studied in order to improve its reliability and to instill motivation and engagement among language learners (Hildebrandt, 2020).

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