Using Artificial Intelligence in Learning English as a Foreign Language: An Examination of *IELTS LIULISHUO*

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Abstract

EFL (English as a foreign language) learners seem destined to make errors and continuously need testing of their changing language levels. However, the unbalance between supply and demand always exists in the process of learning English. Teachers sometimes are also tired of doing repetitive jobs to correct the same mistakes of nonnative speakers. Therefore, many researchers tend to improve the efficiency of teaching processes by using computer-assisted instruction. Specifically, artificial intelligence software is an unstoppable trend to solve this problem. This study aims to find which characteristics are following the elements of Computer-Assisted Language Learning（CALL）pedagogy, mobile-assisted language learning（MALL）principles and some concepts of AI-powered foreign language software，as put forward by Chapelle（2003）, Stockwell（2013）and Pokrivcakova (2019). The results showed that IELTS Liulishuo has affordability to use as an online platform for foreign English learning. More importantly, it shed some lights on CALL and pedagogy and the design of applications of foreign language learning. [3] [12] [11]

Keywords: *computer-assisted language learning, mobile-assisted language learning, learning English as a foreign language, artificial intelligence, IELTS.*

1. Introduction

1.1 Computer-Assisted Language learning and Mobile-assisted Language Learning

The computer was probably regarded as a satisfying method of an innovative to learning a language. As suggested by Levy (1997), CALL is 'the search for and study of applications of the computer in language teaching and learning'. At the same time, Levy (1997) and Chapelle (2001) discovered the feature of CALL, which contains a lot of other disciplines. One of the prominent theories of Computer-Assisted Language Learning (CALL) pedagogy contains L2-input exposure, interaction and linguistic production. [2] [3] [6]

Through the rise of mobile devices, more and more people focus on learning on a small screen. Kukulska-Hulme (2013) defined that MALL is the use of "mobile technologies in language learning, especially in situations where device portability offers specific advantages". Among numerous studies of MALL, it is possible to summarize some principle and apply them for learning on mobile devices.

Elias (2011) puts forward eight principles, and four of them are more targeted to language learning, which refers to : 1) equitable use, "deliver content in the simplest possible format;" 2) flexible use, "package content in small chunks;" 3) tolerance for error "scaffold and support situated learning methods;"4) instructional climate, "push regular reminders, quizzes, and questions to students" [4] [5]

Due to the reason that MALL owns a large amount of the same content with CALL, it is best to combine themselves instead of setting them apart. (Stockwell,2020). Therefore, this paper aims to examine whether the IELTS Liulishuo conforms to those principles of CALL and MALL. [12]

1.2 Artificial Intelligence in foreign language learning

AI-assisted devices in foreign language learning is a sub-class of computer-assisted language learning （CALL）. With the rapid growths of natural language processing and technology able to deal with big data, AI has a large number of improvements in foreign language education. The shift from CALL to ICALL (Intelligent CALL) has been unstoppable and brought a significant change in the quality of student-computer interaction (Kannan & Munday, 2018). Pokrivcakova (2019) summarizes that there are seven categories in applying artificial intelligence into foreign language learning. Applying AI-assisted language learning platforms is one of significant category among them.

Within this class, it also can be divided into two classifications: the conventional graphical user interface with speech recognition and language interface with dialogue function (Lotze, 2018).

There is a considerable amount of applications and platforms still use the conventional graphical user interface. The main reason lies in the fact that they are not that difficult to build. They make learners stick on different practices and make them in small chunks such as filling gaps, drilling, matching exercises. The drawback of this way is that they lack enough creativity and individualized content. Meanwhile, those platforms cannot give feedbacks in detail in terms of grammar, pronunciation and other categories.

Stockwell (2013) has analyzed some relations among CALL, MALL and ML (mobile learning), but none of the researchers summarizes the relations among CALL, ICALL (also can be understood as AI-assisted language learning) and MALL. They are independent concepts but also rely on each other inalienably. [7] [11] [12]
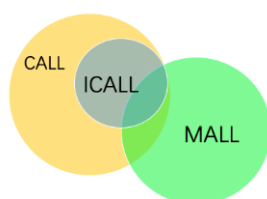

Figure 1. The relationship among CALL, ICALL and MALL

2 An Overview of IELTS Liulishuo

IELTS Liulishuo is a commercial application created by Shanghai Liulishuo Information Technology. Although it is a kind of an artificial platform under the category of conventional graphical user interface with speech recognition (Lotze, 2018), it still cuts a new edge in targeting highly exam-oriented learning materials.

It aims to improve two productive skills, including speaking and writing, combined with instant feedback on IELTS band in some close tasks. At the same time, users can also test themselves by participating in the mock exam and receive a test report with correction.

2.1 The mock IELTS speaking test

In IELTS Liulishuo, learners can enter into a simulation test with an interactive interface of a real examiner's video. After the test, learners can get a thorough report with correction in terms of four band descriptors involving grammar, fluency, vocabulary and pronunciation.

2.2 The close module courses of speaking and writing (Fee-based)

According to different scoring criteria and different topics such as environment, education, transportation and others in the IELTS test, the designers create many close curriculums integrated with speech recognition. The types of exercises include gap filling, drilling, matching activities, translation. Furthermore, every module has pre-test and pro-test with scoring and feedback to enable the learner to visualize the advancement instantly.
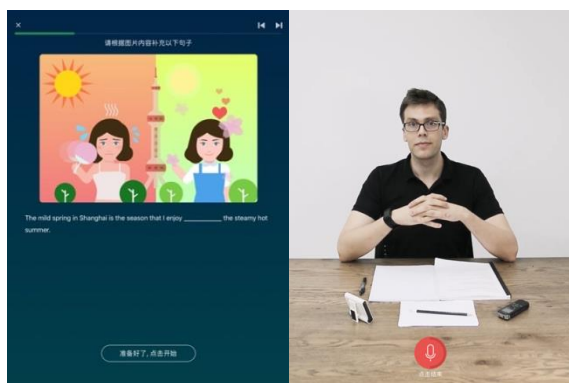

Figure 2. The screenshot of IELTS Liulishuo

3 Evaluation

The author aims to examine the IELTS Liulishuo's characteristics under the principles of CALL, MALL and AI. Specifically, it will be concentrated on CALL pedagogy put forward by Chapelle (2003): L2-input exposure, interaction and linguistic production and the four MALL principles suggested by Elias (2011), including equitable use, flexible use, tolerance for error, instructional climate. [3] [1]

3.1 CALL pedagogy elements in IELTS Liulishuo

IELTS Liulishuo contains basic frameworks of CALL pedagogy suggested by Chapelle (2003), namely, L2-input exposure, interaction and linguistic production.

In the section of pre-designed courses of speaking and writing, learners can immerse in L2-input and also in the mock test part. Specifically, those L2-input exposure manifest in the drilling of sentences, answers of IELTS speaking questions topic-related vocabulary matching, translation activities and the video of IELTS examiner in the mock test. [3]

When it comes to interaction, the features of the application lie more in the feedback.

After every mock test, learners will be given thorough feedback with scores and corrections in four different categories required by the official of IELTS. However, sometimes the correction is not that accurate, or the app may overcorrect learners' answers. For example, the pronunciation of "celebration" with no mistakes was also corrected by the app. Therefore, more direct and precise interaction is encouraged to improve, such as chatbot and more immediate feedback.

Meanwhile, learners output their utterances answering different topic questions in the pre-test, post-test and some practices within every module as linguistic production.
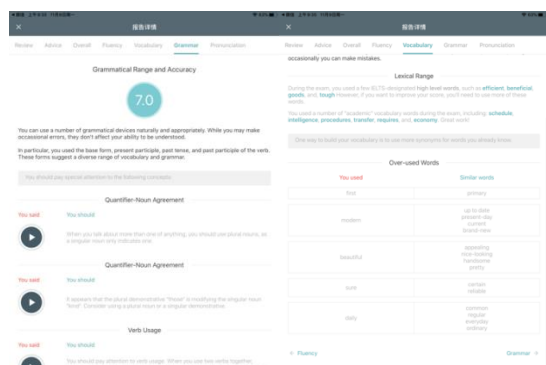

Figure 4. The screenshots of correction after a mock test of IELTS Liulishuo

3.2 MALL principles in IELTS Liulishuo

As for equitable use in the software, many tasks are genuinely designed for the accessible format to practice such as matching activities, gap filling and drilling, and every task provides a pre-designed correction if users have wrong answers. Similarly, as an innovative platform, IELTS Liulishuo also packs different knowledge point in terms of standards of scoring in chunks, which meets the criteria of flexible use. For instance, every task will probably cost every learner 15 minutes to finish it. Nevertheless, if learners want to get a higher score in a post-test, they may have to review the content for several times and imprint the knowledge into their mind.

In terms of tolerance for error, it means to scaffold, and support situated learning methods. It does claim that the app can be personalized through setting different learning plans, including target scores and exam date. Nevertheless, learners can only be delivered four modules each day maximumly and even setting different scores; the modules provided by the app have no difference. It is better to revise the scheme to enable students to see the whole list of different modules or improve the scaffolding to the real personalized stage by recording and analyzing learners' discourse.

As for the instructional climate, it refers to "push regular reminders, quizzes, and questions to students" (Elias, 2011, p. 148). (See also Browne & Culligan, 2008.), which can also be derived from the push and pull mechanisms (see Stockwell, 2013, for a discussion). IELTS Liulishuo does not have an ideal performance in creating instructional climate; in particular, it fails to continuously remind learners to study every day in a fixed time. In the future, it can provide social networking within the app, including some gamification design such as leader boards and competitions.

4 Conclusion and recommendation

In conclusion, IELTS Liulishuo fits the CALL pedagogy and some principles of MALL, which endows affordability for EFL learning, specifically, the learning of the IELTS test. The most significant value of this application is combining the AI technology with exam orientation, being more specific, IELTS test. However, there are still some shortages such as tolerance of errors, innovative space, individualized content and highly collaborative learning processes. Significantly, sometimes it will have false corrections toward learners' speaking, which are not allowed learners to send immediate and efficient

feedbacks to improve the feedback. The author also noticed that every report of a mock IELTS test is in English using some specialized words such as "infinitive". It is not user-friendly enough for nonnative speakers, especially for those beginners, which lead to the demand of two versions of feedbacks for testers including L1 and L2.

Although the improvement of AI-assisted EFL apps has been boosted, we still need to continuously examine the affordability of those mobile applications through the change of time, examining different concepts and investigating the perceptions of both instructors and learners. In the future, more individualized courses according to different levels and paces of learners and a better instructional climate with gamification design in exam-oriented applications are explorable.

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