Intermediate-Level Language Learners' Use of Online Accessible Resources to Supplement Learning: An Exploratory Study
(中級外語學習者利用開放網絡資源輔助學習 ——一項探索性研究)

Zhang, Shenglan
(張勝蘭)
Iowa State University
(愛荷華州立大學)
shenglan@iastate.edu

Abstract: Language learning is a long process of honing different skills and of acquiring the elements that are essential for building these skills, such as grammar, vocabulary, and culture. While classroom learning is important for acquiring skills and knowledge, it is necessary that learners themselves make use of other resources to supplement their classroom learning. This study explores the use of Online Accessible Resources (OAR) by intermediate-level language learners to find out how they search for and use available online resources and what their perceptions are of the resources they find to supplement their learning. Fourteen college students participated in this study. Data were collected through 74 forms that students filled out, one for each resource they used, and through interviews asking them to reflect upon their completion of the task of locating and using the resources. Findings showed that students were able to take advantage of OAR to practice skills, increase knowledge, and improve learning strategies, but they needed more authentic, daily life video clips that utilize grammar and vocabulary at their proficiency level. The results shed light on what resources are available and what resources are urgently needed for Open Educational Resource creators to design and develop, and how teachers can help learners use the available resources effectively.

摘要：外語學習是一個包括提高聽說讀寫各項語言技能、學習語法、詞彙和文化的漫長過程。在這一過程中，課堂學習固然重要，學習者課後利用不同資源補充所學也非常關鍵。本文旨在探討中級外語學習者如何針對自己的需求利用網絡資源進行補充。十四位以中文為外語的在校學習者參與了本項研究。遵循課程要求，學習者根據自己的學習弱點和興趣在網上找到免費資源，並利用這些資源幫助其學習，他們每利用一個資源都填寫一份表格記錄利用資源的情況及思考，並在課程結束時完成了調查採訪。對這些表格以及採訪調查數據的分析結果表明，學生能夠利用網絡上不同免費資源提高語言技能、增加目的語知識、並改善學習策略。但是他們很難找到適合自身語言水平、並

包含他們所學語法和詞彙的真實生活音像資料加強其自主學習。本項
研究對於何種資源對外語學習者有幫助、何種資源仍然缺失、教師如
何幫助學習者利用網上資源等方面提供了重要啟示。

Keywords: Online accessible resources; Open Educational Resources,
Chinese-as-a-Foreign-Language; foreign language learning

关键词：網絡免費資源；開放教育資源；中文為外語學習；外語學習

1. Introduction

As Dubreil and Thorne (2017) pointed out, "L2 learning is fundamentally a social
and socially situated endeavor and … it ought not be limited to learning about language
and culture *in the classroom*" (p. 1-2). Activities outside the classroom include interacting
with people of the target linguistic and cultural community and using (freely) available
resources on the internet to interact with and learn from. The focus of this study is on how
students used Online Accessible Resources (OAR) to supplement their language learning.

In the field of education, what is frequently talked about is Open Educational
Resources (OER), a term used in 2002 for the first time at a UNESCO Forum
(Hewlett, 2013; UNESCO, 2002; Wiley, Bliss, & McEwen, 2014) to refer to the freely
accessible, openly licensed digital materials that are useful for teaching, learning, and
assessing as well as for research purposes. The purpose of OER is to encourage the creation
of educational materials that are free of charge, universally accessible, and can be used by
anyone in the world for educational purposes. With the almost omnipresence of internet
connections and access to resources, students could use any accessible resources to
supplement their learning. For language learning specifically, a vast variety of available
resources could potentially be used to enhance learners' language skills, specifically
reading and listening skills. Therefore, this article explores how second language learners
use OAR, including OER and other available resources that were not necessarily openly
licensed and/or free.

While there is few research on the use of OAR, many studies on instructors' use of
OER have been conducted. Instructors have used OER in many contexts, and findings show
that using OER has lowered costs for students and is as effective as using commercial
textbooks (Hilton, 2016). Many believe that using OER has the potential to make higher
education more accessible to disadvantaged groups as students anywhere in the world can
access OER at any time. Other advantages, beyond reducing students' financial burdens,
include creators' abilities to quickly improve and circulate new materials and innovative
content and instructors' abilities to find, replace, tailor or supplement student learning.
While there is OER-related research focusing on the adoption of OER materials for content
learning in areas such as business (Feldstein, Martin, Hudson, Warren, Hilton, & Wiley,
2012; Fischer, Hilton, Robinson, & Wiley, 2016), psychology (Hilton & Laman, 2012;
Fisher et al., 2016; Magro & Tabaei, 2020), statistics (Bowen, et al., 2012; Lovett, et al.,

2008; Phillips, et al., 2020), math (Fisher et al., 2016; Hilton, et al., 2013; Pawlyshyn, et al., 2013), critical inquiry (Pawlyshyn, et al., 2013), chemistry (Allen, et al., 2015; Fisher et al., 2016; Springer, 2019), biology, history, and education (Fisher et al., 2016), little research has been done examining the use of OER in foreign language education.

Furthermore, foreign language education has unique features compared to content learning. Effective teaching strategies and well-designed exercises or activities can often help students in a content course master core concepts and achieve satisfactory learning outcomes. However, the objectives of foreign language learning include increased proficiency in speaking, listening, reading, and writing in the target language, all while increasing students' knowledge of language structure, grammar, and vocabulary. Textbooks could make learning easier if points are clearly explained, well-sequenced, and well-integrated into meaningful and engaging topics, but an enormous amount of practice is still needed for language learners to improve their skills. Supplemental materials play a crucial role in this practice. Many times, mere exposure of good supplemental materials is beneficial to students' learning.

Therefore, it is important to find out what resources are available for improving what second language skills, whether students like or dislike using these materials, what kinds of materials they would prefer, how teachers can encourage and guide students to use them as learning supplements, and how teachers could integrate students' preferred resources into the curriculum. With this information, teachers will be able to offer high-quality OAR help to second language learners at different levels and give them instructions on using mandatory or supplementary OAR (including OER). In addition, this information will give OER creators concrete ideas about the resources that language learners need and the designs to attract more learners to use them. This study examines students' perceptions of the online resources they located and the types of materials they wanted to find but could not to supplement their learning of Chinese as a Foreign Language (CFL).

2. Literature Review

OAR, including OER, have the advantage of being flexible and diverse. They are heterogeneous and include materials with different goals and functions (Blyth, 2014), ranging from systematically designed courses to individually published materials. In the past two decades, even though no research has been done on the use of OAR in general, extensive research has been done on OER. There are two channels that produce OER: institutions, such as textbook companies or universities, and "peers" producing "commons-based" OER (Benkler, 2007; Wiley, et al., 2014). The is usually done by textbook companies or universities (e.g., most notably in the area of foreign language education, the Open Language Resource Center at the University of Kansas[1], the Center for Open Educational Resources and Language Learning at the University of Texas[2], and a digital repository at Humboldt State University[3].) The latter is produced by "a decentralized group of individuals" who might or might not have relevant credentials (Wiley, et al., 2014,

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[1] https://olrc.ku.edu/

[2] https://www.coerll.utexas.edu/coerll/

[3] https://digitalcommons.humboldt.edu/

p.784). Methods of sharing OER, as summarized by Wiley, et al. (2014), include databases or repositories, platforms for collections of open-access textbooks, or collections of open-access courseware. In recent years, researchers started to investigate the adoption of OER textbooks, which, according to most studies, result in positive learning outcomes. Outside of foreign language learning, OER research mainly focuses on the methods of producing or sharing OER (Wiley, et al., 2014), the adoption of OER textbooks (Allen & Seaman, 2014; Hilton, 2016), and students' or instructors' perceptions of OER (Hilton, 2016).

2.1 Adoption of OER and perception of OER in higher education

Fischer, et al. (2016) analyzed six articles using a quantitative and quasi-experimental design to examine whether the adoption of no-cost, digital, OER textbooks had impact on students' completion of courses, class achievement, and enrollment intensity. Their findings show that students in courses using OER enrolled in a significantly higher number of credits in the subsequent semester than those in courses with commercial textbooks. Students' course completion rates, their final grades, and their enrollment intensity also seem to be positively correlated with the access to instructional materials.

Hilton (2016) synthesized the results of nine studies to examine the influence of OER and traditional textbooks on student learning outcomes, finding that students achieved the same learning outcomes regardless of the texts. Magro and Tabaei (2020) surveyed 66 students in eight different sections of a psychology course that used OER textbooks and found that students' grades in those sections were higher than those in the sections using traditional textbooks. Similar results were found in other studies in both face-to-face learning settings (Springer, 2019) and blended courses (Phillips, et al., 2020).

Researchers have also investigated student and instructor perceptions of OER, and though not all are positive, many are. For example, Hilton (2016) and Ikahihifo, Spring, Rosecrans, & Watson (2017) found that students favored OER's ease of use and reduced costs, trusted the quality, and considered OER as good or better in engagement than commercial texts; meanwhile, only one instructor in one of Hilton's nine reviewed studies believed that traditional resources had a more "trusted quality" than OER.

Past studies on the adoption of OER recognized that researchers did not examine how the students used OER in learning nor investigate whether the instructors revised their pedagogical approaches after they adopted OER (Fischer, et al., 2016; Hilton, 2016). In perception studies, researchers saw a need for "providing a context in which students and teachers evaluate traditional and open textbooks in less-biased settings" (Hilton, 2016, p. 588). Most importantly, no studies have examined how instructors used OER (and OAR) as supplemental materials or adapted OER either technically, linguistically, culturally, or pedagogically (Wiley, et al., 2014).

2.2 OER and foreign language learning

As early as 2012, Colpaert (2012) identified four challenges of the use of OER in foreign language learning: epistemological (i.e., What does "open" really mean?); technological (i.e., Is technology available for creating and sharing OER?), juridical (i.e.,

What happens to my rights?), and psychological (i.e., Why would/should I share materials?). While few studies have addressed the four challenges, a fifth challenge, the pedagogical challenge, is one that many researchers have taken up, specifically examining how teachers and students use OER to help with learning.

Recent research emphasizes the use of corpora, but a problem with OER corpora is the lack of dissemination. Vyatkina (2020) discussed the benefits of using corpora via Data-Driven Learning, but also expressed concerns that freely accessible corpora remain underutilized by language teachers, especially teachers of languages other than English. Over 90% of research in this area focuses on ESL or EFL at the intermediate and advanced levels. Pérez-Paredes, Ordoñana, and Aguado's (2018) survey study on teachers' familiarity with the Natural Language Processing Technologies (NLPTs) – one type of OER – show that most teachers do not know about NLPTs. A review article by Pérez-Paredes (2022), examined 32 studies on the OER corpora done in 2011-2015. Those findings show that syllabus integration is crucial when adopting OER, as suggested in Chambers & Bax (2006).

Others have researched how and why to utilize OER in language classrooms. Dixon & Hondo (2013) described how an OER was re-purposed and used as the primary learning material for college credit courses and provided a meaningful model for adopting OER for credit courses. They found that that the repurposed OER makes collaborative learning and community learning more focused and that foreign language instructors, especially experienced instructors, are less likely to adopt a whole OER course or textbooks for their classroom teaching than instructors in other subject areas. The experience language instructors are more likely to use OER to supplement their teaching to improve learners' language skills. To approach using OER from this perspective, it is important to find out what learners need, what available OAR (including OER) they can find based on their needs, their perception of using these resources they found on their own, and whether it is feasible to require learners to search out and locate OAR to fit into their own learning. An entire issue of the *Modern Language Journal* (2014) discussed the role that OER materials play in language learning and teaching. In that issue, Larsen-Freeman (2014) stressed the importance of looking at the learners in relation to the materials:

> An affordance for learning in a complex system is an emergent
> phenomenon, determined by the perception of the learner in relation to the
> context, not one autonomous in the context or resident intrinsically in the
> materials themselves… it is important to acknowledge that it is the learner
> in relation to the materials who will determine whether there are learning
> opportunities or not. (p. 655)

If they had this information, instructors could adopt and adapt OER, which allows for promoting a 4R pedagogy due to its being openly licensed: Reusing, Redistributing, Revising, and Remixing (Blyth, 2014; Wiley & Green, 2012).

3. Research Questions

This study aims to answer the following research questions:

- What aspects of language did intermediate-level CFL learners look for in online accessible resources to help them improve?

- What resources did they find and what did they wish to find to supplement their classroom language learning? Did these resources serve the learners' learning purposes?

- What are students' perceptions of the resources they located and used?

4. Methods

This study adopted an exploratory research method. Fourteen intermediate-level CFL learners participated in the study, including seven females and seven males from different majors including chemistry, engineering, psychology, political science, sociology, criminology, agriculture education, linguistics, and global resources at a comprehensive university in the United States. Five of them were seniors, four juniors, two sophomores, and three freshmen.

4.1 Procedure and data collection

Throughout the spring semester of 2020, students were asked to find and use at least six online resources that served their learning needs. They then filled out a form for each resource, which asked for the following information about the resources: (a) the URL; (b) the title; (c) the creator or author and their credentials; (d) what they learned from the resource; (e) their critique of the resource; and (f) their specific goals for seeking a resource and their search process. They were given specific criteria to consider in their critique, including whether the resource fits their proficiency level, needs, and interests; whether the presentation was clear; what feature(s) they liked or disliked; and what suggestion(s) they would give to the creators or authors.

At the end of the semester, the researcher conducted an informal interview with each participant asking (a) how they approached searching for OAR, including how much time they spent on searching for each resource, using it, and completing the form; (b) whether there were resources that they wished they could find but did not; and 3) what their future plans regarding using online resources are. The interviews were recorded and transcribed.

4.2 Data analysis

The form data were first grouped based on the formats (e.g., video, webpage, podcast, etc.) of the resources that the students found and used. Within each group, the OAR was further categorized based on the topics (e.g., grammar, culture, vocabulary, etc.). Within each group, the following was recorded: authors and credentials, types of information that students learned, reasons they liked or did not like the resource, and their

original purpose and search process for finding this resource. The data in each group and in the overall compilation of resources were further analyzed to detect patterns in students' intentions for searching, their views about the resources, how they used the resource, and what they learned by using the resource.

The data collected via the interviews were analyzed using an open coding method by close reading, which allows for the possibility of different themes to be identified (Corbin & Strauss, 2015). The themes were further examined to form reasonable and logical accounts of students' use of resources and their perception of them as supplemental materials for their language learning, which were then compared with the analyzed form data.

5. Findings

All participants appreciated and enjoyed the opportunity to find resources that they had not been aware of before. Of the 74 resources reported, students spent 35-40 minutes on average on each resource, including searching for it, using it, and filling out the form. For most of the resources located, the participants determined the credibility of the sources based on the respectability of the website or the creators' credentials, such as "having many years of teaching experience" or "having lived in China for a few years." These resources not only helped students learn the language, review their learning, and feel reassured and happy to see the content they had learned in the classroom being used in the authentic OAR, but also gave students new tips and methods of learning.

In the process of completing their searches, students were surprised to find that so many resources were available and easy to find. Those who had used the OAR before used this opportunity to "branch out," "look deeper," and find new resources that they "had never heard of" but were beneficial for their learning. Without this task of locating and using OAR to supplement their learning, they would not have taken the chance to diversify the resources they had used before. The students practiced using resources more systematically and got "a space to reflect on the resource." The questions on the required forms made them more conscious of their learning; as one student said, that "helped us determine … what was [*sic*] our thought process when we were trying to find the resource, and what do we think about it." Furthermore, using OAR was a good change from classroom learning. Most students liked the "open-ended" feature of the task. It was not like textbook or classroom learning. This change from normal classroom setting learning not only gave them an opportunity to explore what they were interested in, but also motivated them.

5.1 Purpose of searching for OAR

Students learned about 10% of the 74 resources through a recommendation from a teacher or a friend, because they had run across the material previously, or because a computer search algorithm presented the resource. For the rest of the resources, participants specified a purpose for their searches: To generally improve their Chinese or solidify and

review what they have learned (30%), or to learn about Chinese culture, locate idioms, improve particular skills (70%). See Figure 1 for an exact breakdown of these purposes.

Of these 70% of searches, students most commonly cited a personal interest in Chinese culture and society. For example, they specifically wanted to know more about college life in China, etiquette, use of popular idioms, and songs that their parents listened to when they were young and living in China, as they sought to understand their parents and their culture better. The second dominant purpose was to improve challenging language skills, such as character learning, vocabulary learning (e.g., slang), and listening skills. Even at the stage of intermediate Chinese, learning/memorizing characters still seems to be a great challenge. The third largest category included improving other language skills such as reading, speaking, clarifying grammar, learning more expressions for real-world use, and helping with coursework. For example, one student wanted to learn how to order food in a Chinese restaurant because her parent often asked her to do so. Another wanted to better understand how her Chinese friends speak on WeChat. Finally, their hobbies and plans to take HSK (the official Chinese Proficiency Test for non-natives) also drove them to find relevant resources. One student was seeking help for her writing skills.
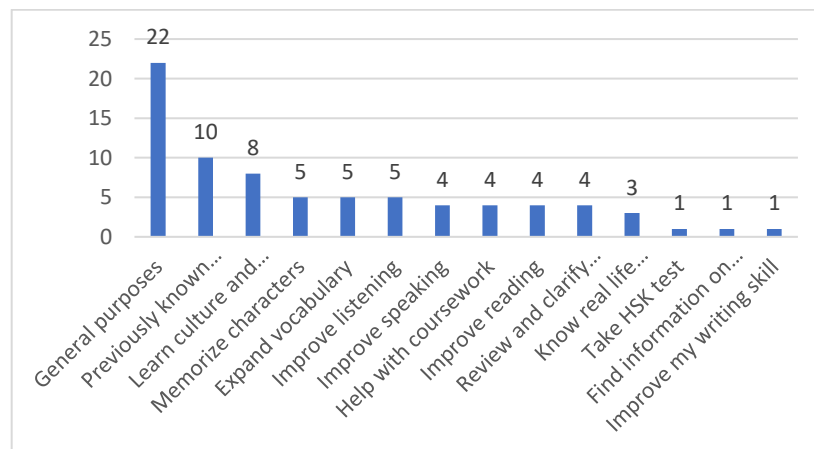

Figure 1 Students' original purposes when they started to look for resources

5.2 Resources located and used

Some students were able to find OAR in a variety of formats, containing different content, and were able to mix resources for their individual learning purposes. Other students only found resources with minimal variety of formats and similar content. Among the 74 listed resources, only *two* were openly licensed that can be defined as OER and these were from two university websites.

Of the 74 resources that students listed in their forms, some ones were utilized by different learners. After removing the same ones used by different learners, i.e., the duplicates, the majority of resources were from YouTube (35), blogs (7), language learning apps (6), and websites focusing on reading or on Chinese language learning (4 each). See Figure 2 for the complete breakdown of the resource formats used. Resources in different formats provided different kinds of help with student learning from various perspectives.
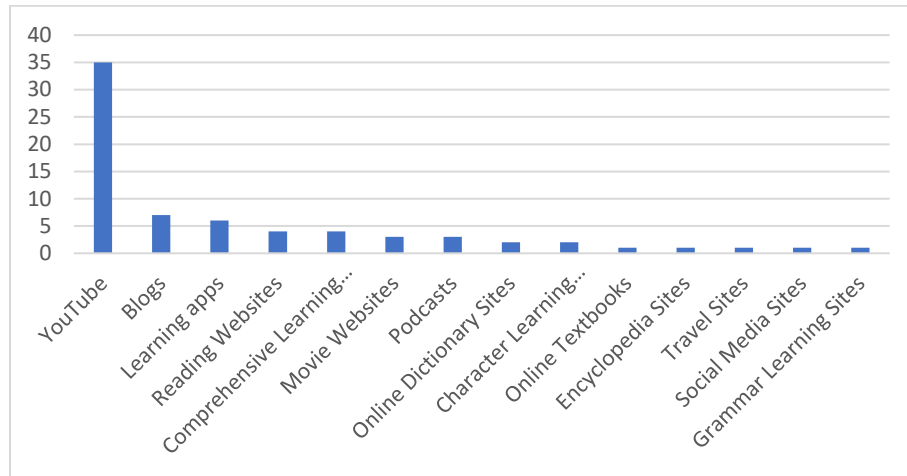
Figure 2 Formats of the resources located and used by the participants

5.2.1 YouTube videos

The 35 YouTube videos comprised language learning tutorials; Chinese movies, TV shows, or music videos; and videos and vlogs in Chinese about real life in China or the United States or on topics such as coin collecting and cooking. Figure 3 presents a breakdown of the video categories. Of the 17 YouTube videos created for CFL learners, nine focused on conversations in a variety of formats, such as using authentic TV shows to analyze the sentences in conversations, explaining a typical conversation a tourist could have with native speakers, and analyzing John Cena's WWE press conference speech in Chinese and explained what he should have said to express himself more accurately. The rest of the videos focused on teaching grammar or individual words and phrases.
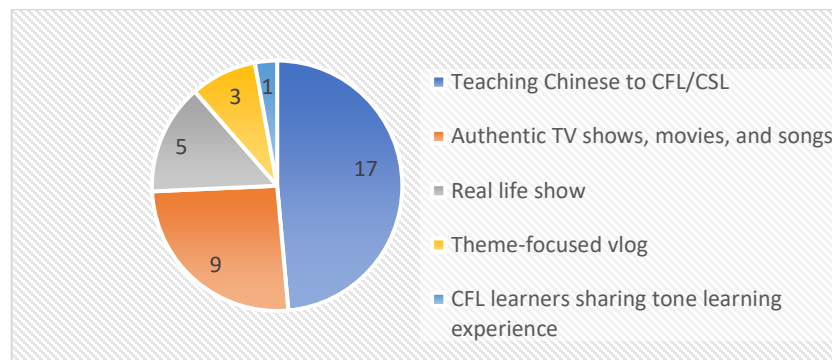
Figure 3 Categories of the 35 YouTube videos that students used

5.2.2 Apps and blogs

Students listed eight apps, with Duolingo appearing three times. The others were Loecsen[4], Memrise[5], Mondly[6], Quizlet[7], and Skritter[8]. Seven blogs were identified, one personal blog and six blogs produced by commercial language learning sites, including thelinguist, speechling, and fluentu. The student who used the personal blog learned the lyrics of a popular Chinese song with the assistance of subtitles in English, Chinese characters, and Pinyin. On the other blogs, students primarily read about tips for learning Chinese faster, memorizing Chinese characters, and learning to read Chinese newspapers. Most of the blogs were written by advanced CFL learners.

5.2.3 Other resources

Five resources focused on reading: Three focused on HSK reading, one presented reading collections developed by the University of Iowa, and the other offered reading practices created by a CFL learner who had lived in Beijing. Four resources were comprehensive Chinese learning websites: digmandarin.com, Chinese.remembr.it, Chinese-tools.com, and cchatty.com. These sites have many tools for learning Chinese such as courses, books, study abroad guides or programs, videos, and so on. Three were podcasts—spotify, popupchinese, and cslpod—and three were movie sites, with two of the students listing the same one, viki.com.

Students also used a variety of websites. Two focused on translation: the translation site at bing.com and wordreference.com. A character learning website (archchinese.com) was identified by two students who used it to learn characters that were covered concurrently in class. Five were different in format from any of the other resources: a travel website explaining Chinese etiquette, a social media website (Facebook) that has interactive sessions with Chinese teachers and learners from all over the world, an encyclopedia website (Wikipedia) on Chinese idioms, a website focusing on grammar learning, and a Google book site for a Chinese textbook.

5.3 Use and perception of the OAR

All participants reported that through these resources they reviewed aspects of the language that they had learned previously and learned new elements of the language, such as words, phrases, and usages. They listed new words and phrases that were useful for daily life in China and relevant to current events, such as the COVID-19 pandemic. Others were terms related to students' specific interests, such as coin collecting or cooking. One student learned the whole system of family trees in China. Some students commented that they learned not only new vocabulary words but also the contexts in which those words were used appropriately and "what words were derogatory for humor's sake or are considered

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[4] https://www.loecsen.com/en

[5] https://www.memrise.com/

[6] https://www.mondly.com/

[7] https://quizlet.com/

[8] https://skritter.com/

pejorative." One student wrote that learning these new expressions "helps me understand some things my Chinese friends say on WeChat and will help with colloquial interactions. Oftentimes I feel like I sound very formal when using my Chinese because I am learning specific vocabulary. Branching out will help me interact with my Chinese friends."

In addition, students practiced different language skills, such as character writing, tone recognition and production, pronunciation, and listening skills. The resources helped them review what they had previously learned, such as words and expressions, grammar, and characters. Through these resources, the students discovered new learning strategies, became self-conscious about their learning, and felt "more motivation to learn Chinese." For example, resources on characters helped the participants realize that they need to "do a better job at thinking of the meaning of the components of characters."

The resources the students used helped expand their understanding of the culture and learn specific characters, including the stroke order, the names of the strokes, the stories about how some characters changed over time from their earliest known pictographic forms to the versions used today, the types of characters, and different methods of memorizing new characters. For example, one participant commented that he learned that "using colors to differentiate tones could be a very helpful tip." One student said using the resources helped "preview what we are going to learn so it makes learning less stressful"; in other words, they helped participants prepare for future class tasks.

Several students pointed out that what they wrote on the forms was far less than what they had actually learned. Many resources were meant to be used over time, not provide immediate results. The things students were required to write on the form were trivial compared to what the resource was meant to do and how the students would like to use them. Furthermore, one student spoke about learning from the process of searching for resources:

> I could click through different resources and I would still read them or listen to them even if they didn't pertain to what I was trying to find, because I was like, 'I mean, I have time to look and you know, it doesn't hurt, because what if I find something new that I didn't know before?' and so, if I did find something that I thought was useful but I didn't want it for my resource form, I have a Chinese notebook. And so, I would write it down in there, a new word that I learned, or a new sentence structure or new grammar.

5.3.1 The features of the resources liked

The participants' preferences can be categorized into content, content presentation, and format and are overviewed in Table 1. The most frequently reported reason for liking certain resources' content is that the topics were interesting either because they are closely related to real life or the resource is up-to-date and related to current events or to current classroom learning. For example, students liked videos in which the host went to real locations or showed real people talking and using slang. One student wrote, "It seems to me the conversation is very typical at the workplace, which is interesting, since I want to

know what the daily life conversation in Mandarin is like." Some wrote that the content was about college life, such as sporting events, which were similar to their college life in America.

Some students used the resources to prepare for challenging tasks they had to complete. For example, one student wrote, "I have a pocketbook of idioms that I have not gotten into, and I thought this summer I might spend some time with it. This Wiki article gave me some good background for a little prep work." Other materials were closely related to what they were learning. Some not only followed the book's organization with word sets and quizzes for every chapter to help them review what they were learning, but also taught other words on the same topic. In addition, the students liked a few other features, including, acclimating to different language proficiency levels, having a "good summary of what I know with some things beyond what I had learned," covering many different topics, helping expand their knowledge and "vocabulary in more obscure areas," offering learning tips that were "easy to apply to our own Chinese learning journey," and introducing new vocabulary with literal translations and cultural information.

The most frequently reported reason for students liking certain resources was the clear and clean presentation: No clutter or distraction and clear audio. The second favored feature was that the materials were easy to follow because they provided normal and slow speeds and the main characters were non-native speakers or children who speak more slowly than adult native speakers. The third feature that students appreciated was the effective approaches in teaching the language. For example, some materials displayed the language on screen or gave good explanations and examples of words. One student found a resource that "slowly teaches you new words and constantly brings them up in other lessons to keep teaching you." Others used CFL learners' common errors to help people realize how much that error impacted what they wanted to say. The fourth favored feature was that the resources used a combination of audio, Pinyin, tones, Chinese characters, and English descriptions for what was being taught, sometimes providing transcripts and vocabulary lists for what was said in the video. The fifth favored feature was that the length of some OAR was "just right," meaning "long enough to have meaning and interest and short enough to keep readers engaged." In addition, some students enjoyed the game-like setup of some materials because they were "fun to use" and "motivating." The use of interesting visuals, including animations and "cute images," was also noted as a positive feature. Students also liked the opportunity embedded in some materials for practice and interaction because it made them "feel part of a community of Chinese learner from all over the world."

While the above comments were about the OAR materials in general, students specifically noted things they liked about OAR reading materials. These included providing definitions, audio, or hover-over Pinyin of new words directly from the text, providing pre-quizzes and vocabulary study before the reading materials, and providing follow-up questions after the reading materials to check for understanding.

Besides the features in content and in presentation, some materials were found to have made learning convenient for learners. For example, students reported how much they appreciated that pre-recorded materials could be listened to many times. One said podcasts

are good for learning because they "fit my schedule when driving to my second job." Another student wrote, "I can watch the movies in Chinese whenever I want to watch TV shows. I do what I like but still learn Chinese." One student said they liked videos with user feedback sections because they provided opportunities "for me to learn from other people because there is an area for people to comment."

Table 1 Things that students liked

Content	Presentation	Accessibility
• Interesting • Relatable • Acclimating to everyone • A wide variety of topics • Offering learning tips • New vocabulary has both literal meaning and culture implication	• No clutter; clean and clear presentation; clear audio • Tempo and speed make it easy to follow • Different approaches in teaching the language • Providing audio, Pinyin/tone, and English for characters learning • Appropriate length and game-like setup • Interesting visuals	• Convenient for use in different life environments

5.3.2 The features of the resources disliked

Students had fewer dislikes, and they gave three suggestions for improving OAR content: Making the videos more in depth, making content more interesting to learn, and making sure English translations are accurate. In addressing the presentation of the materials, the main complaints were that the text font size was small, that people spoke quickly and quietly, and that English and Chinese subtitles did not sync well and were sometimes contradictory to each other. One student also suggested that the English translation not be provided at the same time as the Chinese subtitles because the overload of information made it hard to learn.

5.4 What they wished they could find

Because a lot of OAR were for beginner-level learners, most participants wished that they could find real life videos that catered to their intermediate proficiency level. Specifically, they were looking for materials that were different from what they were learning in the classroom; that is, not formal teaching of grammar or words, but an authentic application of what they have learned in a format showing how those words and grammar are used in an average, everyday setting. They would appreciate it if they could find more authentic videos, "native stuff," about real life, not about learning. For instance, one student said:

[I wish that I could] find something in Chinese, but talking about real life,
normal life things… because what I'm reading and listening to right now
[from the websites] are just … the dialogue from the book … I would
maybe be able to make the connection between … learning Chinese,
normal life, and combine them together more.

Another student did not find an authentic video, a talk show, until the end of the
semester. She was very excited about her discovery and happy to find "a real world"
example:

It only occurred to me at the end that maybe I should find … actual
videos, like news or TV shows where it's less like textbook dialogue for
learners, and it's more like native stuff, because if I wanted to go to China
and I wanted to speak with … native speakers … that's a whole different
experience from learning in the classroom, and so I think, going forward, I
will probably look for more of those, more natural resources just so I can
get used to hearing different types of accents and the speed at which they
talk.

The students were aware that they needed to "have some level of learning before
you can … do the things with daily life," but one also shared that if they had "more of those
resources with daily life, that would also enhance my learning, and I could learn as I'm
being a consumer of it."

Students also found it hard to locate websites to help with speaking or writing at
their level. Some students wished that they could find English-language television shows
that had been dubbed in Chinese or children's shows which they thought would have fit
their proficiency level. One student said, "In the U.S., … we have a whole bunch of kid's
channels where kids learn all day about counting, and they learn either English grammar
or reading or like social skills." Other students would have liked to find resources that "put
learning Chinese and music together." According to one student, there are a lot of basic
raps for beginning Chinese teaching, but she could not find more resources at her level.

Finally, a few students expressed their frustration about paywalls. As one put it,
"you can learn this information you want from this one page, but if you want to learn
anything more or be more in-depth, then you need to join their language-learning service."

6. Discussion

As Larsen-Freeman (2014) stressed the importance of making students determine
whether there is learning opportunities in the learning materials, this exploratory study
focused on examining how students locate and use OAR to complement their learning and
considering their perceptions of using those materials. The results show that even though
some students were overwhelmed by the amount of OAR at the beginning of the task, they
could approach the search task in a variety of ways, including starting with resources
recommended by others, related to their personal interests, based on what they were
learning in classroom, or tackling skills that they wanted to improve. They were also able

to locate good resources with a variety of formats and contents. Most importantly, this task has helped the students realize the broad availability of OAR, and the fact that they could use these resources to learn all aspects of the language, improve their language skills, increase their knowledge about the culture and develop their hobbies. An essential effect of completing this task is that the students have become more aware of their learning and have developed different yet critical learning methods.

The students enjoyed using materials of a moderate length that were relevant to real, daily life and that had clear presentation, especially when the Chinese characters, Pinyin, tones, meaning, and audio were available. In addition, they were able to use resources at their convenience to maximize advantages of the OAR features. Furthermore, using OAR to supplement their learning is a good change from classroom learning, an opportunity to find and use new resources that most were not previously aware of, a chance to review what they had learned in class, and an opportunity to see how vocabulary and structures were applied in the materials. However, they wished that there were more video materials that were designed at their level utilizing the challenging grammars they are learning, but showing grammar and vocabulary used in natural, daily life settings. They would also like having materials that cater to different learning styles, such as combining music with language learning. They are also in need of resources that could enhance their speaking skills.

6.1 Implications for teaching in general

These positive findings of students' learning and enjoyment of the OAR have several implications for teaching. First, requiring students to search for and use OAR to supplement language learners' learning is beneficial for the students. Asking students to find resources on their own might give teachers a feeling of being out of control, but this study has assured that students gained vocabulary and learning methods, reviewed what they had learned, and much more. Additionally, students were held responsible for their own learning, and they found time to sit down and dig deeper into their interests while improving their language learning. To make better use of this task, it would be best for teachers to provide a platform – either online forums or large group classroom time – for students to share the good resources that they find. In addition, teachers could give a few examples of OAR to help learners get started with their searches so they will not be too overwhelmed by the vast number of resources out there. It might be beneficial to students to have requirements for which aspects of language learning they should find in OAR, so that the resources located would be more diverse and would help them improve different aspects of language learning. It is also important to teach learners to strategically make good use of their time by selecting different types and contents of OAR on different occasions, for example, using podcast to listen to while walking or driving, using movies to relax when being tired.

Second, when requiring students to search and use OAR to supplement their learning, it is good practice to have students answer specific questions about the resources so they are more self-reflective and self-aware in their learning. For example, ask students to find out if they can find whether the creators have the right credentials, can learn something new, can improve what they intended to improve, and can employ the OAR in

their future goals. Asking students to write down what they have learned by using the OAR, however, may have mixed results: The question obligates students to think about what they learned and gives them an opportunity to reflect upon the learning, review what they learned, and enhance their memories, but at the same time restricts students to learning only things that can be written down at that moment. Learning is a long, inclusive process. Some things that students learn and appreciate in some respects, such as cultural knowledge, learning methods, and manners of speaking native speakers use, could be too intangible to be recognized until later.

6.2 Implications for designing and developing OER

Implications on designing and developing OER can be drawn from the findings about students' use of OAR. The fact that only two openly licensed resources, OER, were located and used shows that even though researchers and practitioners have spent time and energy creating OER to help students learn, these resources were not easy to find, or maybe did not catch learners' attention as the other resources did. Of Colpaert's (2012) four challenges, the technological challenge remains to be met, and OER designers and creators are facing an urgent task to make OER easier to locate and more attractive to get learners' attention. At the same time, Colpaert's (2012) epistemological challenge, what does "open" really mean, should be further discussed in the field of foreign language learning. As the findings of this study show, language learners benefit from the abundant resources available to improve their learning. However, "being openly licensed" is a condition for teachers to apply 4R (Reusing, Redistributing, Revising, and Remixing) to OER use (Blyth, 2014; Wiley & Green, 2012), and is not a condition that ultimately impacts learners' initiatives to learn from online resources. If researchers and practitioners only focus their attention on the use of OER, an opportunity might be missed to teach students to take advantage of vastly available and useful language learning materials that are not openly licensed. Along this line, the findings of the study shed light on designing and creating OER resources for language learners.

First, OER creators may consider creating materials that have the features that the students liked about OAR or wished that they could find, such as being relevant to real life; for example, ones that include challenging structures and expressions for intermediate level Chinese language learners in a daily life setting. For example, they could take the format of a skit or a movie that is nearly authentic to daily life. To achieve this, designers and teachers might need to collaborate with each other. In addition, OER could use innovative ways of teaching the target language, such as combing rhythm and melody with the language to create fun materials that fit different learning styles. Students learning the target language in a classroom setting tend to look for OER that has a different approach to language learning from what their instructors use. Therefore, OER that adopt innovative ways of using the language would likely be more widely used by this group of learners. In addition, OER designers need to make the materials' presentation accurate, clear, uncluttered, and if possible, make the whole set of Chinese transcription (Pinyin, tones, characters, and meaning) available.

Second, OER creators may take into consideration how the format and content of a resource impact the ways and time students spend using it. For example, the findings show

that podcasts were used on the way to work, and movies were watched when the learners were tired of traditional studying. Based on this finding, the creators of OER may want to put more entertaining content into the videos and use hosts that speak both the native and target language for students unable to look at transcriptions. This will make their learning more convenient and therefore will increase the possibility that these OER are adopted by the teacher.

Third, OER creators may consider creating materials that can help students improve their skills in the challenging aspects of the target language. For example, in the case of Chinese language learning, learning Chinese characters is a big challenge for students whose native language is an alphabetical language. A variety of OER materials should be available to help students of different learning styles with character learning. For French learners, one of the biggest challenges is the verb. Taking into consideration of the needs of language learners is very crucial.

7. Conclusion

As OER are becoming more widely adopted in content areas by instructors in higher education to reduce financial burdens for students, it is necessary to investigate how learners take control of their learning by exploring and using available resources on their own, especially in the field of language learning where a great amount of practice is needed to improve language skills and cultural knowledge. Since teaching in a classroom setting includes time constraints that limit study of the core language elements, it is necessary to give students the opportunity to utilize any available resources on the Internet that they could locate to expand their learning.

This study contributes to the field by showing how one group of foreign language learners used these resources to supplement their learning and how an instructor encouraged them to complete such tasks. Results show that the students were able to locate OARs, though not many OER, to successfully supplement their learning. In the process of searching and using the resources, students were in charge of and personalized their own learning by taking their needs into consideration and actively using available learning materials to meet those needs. Personalized learning, consisting of differentiation and individualization, is considered one major opportunity to improve education (U.S. Department of Education, 2010; Pane, Steiner, Baird, & Hamilton, 2015). While differentiation refers to teachers tailoring their methods of teaching to meet students' needs, individualization allows learners to "progress through the learning material in their own pace, skipping or repeating topics if necessary" (Melzer, 2017, p.4), which is what this OAR project offered to learners.

The assigned task of using OAR is a good approach to make learners aware of and take advantage of OAR. As called for in Larsen-Freeman (2014), the focus has become letting the learner "determine whether there are learning opportunities or not" in the materials (p. 655). This study shows what materials are needed for intermediate-level learners and what students like and dislike. This information can be especially useful to OER designers to help them create OER that is useful for teachers and students. In this

respect, the study shed light on how teachers and students meet the pedagogical challenge in adopting OAR (including OER) in teaching and learning.

This study has limitations. First, it adopted an exploratory approach to find out how language learners used OAR and what OAR they used to supplement their learning without examining what OAR they used before this study. A future experimental study can compare the learners' changes before and after completing the task, and therefore examine the effectiveness of the task on the quality and quantity of OAR searching. Second, the group of participants might have a unique feature that may not be fully representative of other second language learners, such as French intermediate-level learners or novice-level CFL learners. Further study is needed to find out how other groups of foreign language learners handle this assignment depending on the language they are learning, their level of proficiency, or their native language. Third, because this study used self-reported results, it is hard to validate how much learning happened by using the OAR. Further research can use an experimental design to find out how much learning happens when the students use OAR to supplement their learning. In addition, it would also be worthwhile to find out what strategies skillful OAR users utilize to maximize their learning.

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