Taking Stock in the Use of Dictionaries for Language Learning: Exploiting a Common Resource

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Abstract

For this commentary, I have been tasked with choosing and describing a technological innovation in language learning, selecting several studies that report on using this technology in second or foreign language (L2) classes, and then evaluating how well the activities used by the teachers/researchers exploit the possibilities of the technology. I have chosen to discuss briefly the evolution of dictionaries and their usage for language learning. As a long-term teacher-turned-researcher, I have seen numerous innovations come and go, but dictionaries, albeit often misused, remain a staple in many classrooms. They can be a powerful resource to enhance vocabulary learning and, at least in my opinion, deserve more nuanced attention in published research. As an outsider to this specific field, my critiques are purely observational, representing only a snapshot perspective that is clearly influenced by my own experience working in East and Southeast Asia. Nevertheless, such commentaries can be valuable in bringing to light potential issues from the viewpoint of a research consumer rather than producer in

the discipline being discussed. To narrow the scope of this paper, I have focused predominantly on studies in university settings, those of which are the center of discussion having taken place in East Asian contexts.

Keywords: Dictionaries, Dictionary usage, Dictionary intervention

Introduction

New technology has afforded us with innovations that have made learning a second or foreign language (L2) potentially easier than in the past. One particular innovation that has a deep-seated history in language teaching and learning is the use of dictionaries. Paper dictionaries have been around for centuries and come in monolingual, bilingual, and bilingualized varieties (which include both translations and target language explanations). There are learner dictionaries that control vocabulary and provide information about grammar, collocations, and register, as well as online versions that do so much more (Healy, 2018). Classic papers criticized the content in dictionaries, although new technology has, for the most part, enabled digital and online resources to fill those gaps. Unfortunately, the implementation of dictionaries in classroom teaching and research has, in my opinion, failed to live up to its potential, leaving this valuable resource "disappointingly underused" (Frankenberg-Garcia, 2018, p. 1). Therefore, in this short paper, I will provide a brief overview of this area, followed by a description of the use of dictionaries in L2 classes. I will evaluate several recent studies, commenting on the implications for exploiting the

possibilities this technology has to offer English language teaching in university settings.

A Brief History

Selwyn (2012) notes that in constantly setting our sights on the future, the integration of technology into education settings can be seen as "ahistorical", hindering our ability to learn from the past and manage our expectations for the future (p. 216). Although the relatively brief existence of some modern technologies does not allow for a historical perspective, the use of dictionaries does. Therefore, it may be useful to look back before looking forward.

Print Dictionaries

Initial accessibility to dictionaries would have been fairly limited for the majority of learners in the past, but as it became cheaper to print and distribute resources, many classrooms found themselves with paper dictionaries both for native speakers and for learners. Traditional monolingual dictionaries were, and still are, written with a presupposition of learner knowledge and control of the language; subsequently, many are unsuitable for learners (Dubois, 1981; Lew, 2016). In the early twentieth century, dictionaries for learners began to feature controlled vocabulary (West, 1935) and grammar explanations beyond simple part of speech descriptions (Hornby, Gatenby, & Wakefield, 1945). The *Oxford Advanced Learners Dictionary* is considered the first advanced learners dictionary and was initially published under a different title in 1942; similar dictionaries from Longman in 1978, COBUILD in 1987, Cambridge in 1995, and Macmillan in 2002 also appeared,

with nearly one new publisher per decade. Nesi (2014) notes that prior to the 1980s, there was a serious dearth of research on dictionaries; Welker's (2010) survey lists just six studies.

Despite the paucity of early empirical research, commentary on dictionaries was certainly prevalent, albeit most of it critical (e.g. Hornby, 1947; Hill, 1948; Orszagh; 1969). Jain (1981) avowed that dictionaries have not met the needs of learners, stating that even though learner dictionaries are free from unnecessary words, they often produce definitions that are imprecise, creating "false equivalences" (p. 277), providing little information about "selection restrictions" (p. 281), and offering little guidance on how to use the words. Shortly after, there would be an upsurge in studies on monolingual dictionaries (e.g. Bejoint, 1981), bilingual dictionaries (e.g. Ard, 1982), studies comparing the two (e.g. Thompson, 1987), and even studies comparing specific titles (e.g. Cumming, Cropp, & Sussex, 1994).

Digital Resources

Perhaps one of the greatest examples of educationists over-estimating the impact of new technologies came with the use of pocket electronic dictionaries (PEDs) in the mid-90s. Nesi (2014) cites Taylor and Chan (1994) as the first study on PEDs, which around the time were thought to revolutionize language learning. More recently, Chen (2010) found that there was no difference in paper dictionaries versus PEDs in terms of comprehension, production, and retention (see also Chen, 2011). Speed of use was cited as a clear advantage, although other digital resources such as CD-ROMs (also short-lived) and the availability of online

dictionaries and applications that came later tend to work at the same speed. Lew (2016) also found that there was no difference in print or computer-based dictionaries in improving student writing, with similar results from Dziemianko (2017) in regards to reception and production in word learning. So while there is a push to move towards digital resources, as we have seen with PEDs and CD-ROMs, even certain promising technologies can become quickly outdated. This is not to say, however, that online dictionaries are always the solution to issues regarding effectiveness and usability.

Due to the democratization of the internet, the quality and overall reliability of online resources can vary dramatically (Lew & Szarowska, 2017). Many resources do not face the same rigorous quality standards as those produced by major publishers. Users want, and need, high quality resources but, for the most part, do not want to pay for them. In turn, sales of printed dictionaries have plummeted in recent years as free alternatives have become available (Nesi, 2014). Consequently, even major publishers have resorted to using advertising on their websites to mitigate the issue of rapidly decreasing sales. Dziemianko (2018) found that advertisements on online dictionary sites not only impede language learning, both reception and production, but also extend the time it takes for users to comprehend unknown vocabulary; this can be attributed to the distracting nature of pervasive advertising. The university students in her study performed better with a premium (ad-free) version of the same program, although even the design of premium online resources can pose problems. Chen (2016) found that the Chinese university students in her study felt overwhelmed

by cluttered dictionary items that include a lot of information, even though it was relevant. Dziemianko (2012) reported similar issues in another study and recommends that online dictionaries present one entry at a time to alleviate the inundating nature of information overload. One could argue that this is much more of an issue for paper dictionaries that have to resort to micro-sized font and crowded pages to reduce printing costs; yet, the presentation and potential affordances of online platforms are still important factors to consider.

It is crucial to note that the discoveries made by and the subsequent discussion of the seemingly negative aspects of dictionaries have only furthered the development of modern resources. On the contrary to how it may appear, some have argued that dictionaries have never been better due to improvements in both content and format over the past few decades; their usage in language education, however, can seriously be improved (Frankenberg-Garcia, 2018). While it would be a bit unfair to single out studies in smaller journals to critique as these are numerous and easy to find, I have decided to focus my discussion in the next section on several studies published in major journals and then offer an empirically supported discussion of how well the teachers exploit the possibilities of this technology.

A Closer Look at L2 Classroom Research

Research on dictionary usage has, historically, focused on small-scale studies in varied contexts, making the findings difficult to compare (Nesi, 2014). Nevertheless, in this section, I will home in on three studies situated in East Asian universities that have

implications for one another, despite having taken place out of chronological order. I will begin with two studies that I feel lack pedagogical initiative and conclude with one study that provides what I feel is the best published example regarding implications for classroom practice.

Chan (2012) and Chen (2016)

Chan (2012) examined the use of monolingual dictionaries by native Cantonese advanced L2 learners of English (N = 32) at a university in Hong Kong. In part one, the participants were given nine sentences that each contained a target lexical item in italics, each with subtly different meanings based on the context. Given five possible choices, the participants had to choose the most appropriate meaning. The students were then given the same sentences, target vocabulary, and answer choices, as well as a monolingual dictionary to use. The students could not change their answers from part 1 but could choose a different answer based on their consultation of a dictionary. Self-report protocols show that the high-proficiency learners only demonstrated a relatively small amount of success, with limited facilitative effects attributed to dictionary usage. A paired, two-tailed t-test illustrates that inferencing with and without a dictionary was statistically significant at the 0.05 level ($t = -4.28$; $p = 0.0027$). The author claims that "more problems than strategies were revealed in the study" (p. 128), problems pertaining to focusing on irrelevant grammar, ignoring word-form differences, and a preoccupation with high-frequency collocations, among others.

While the findings are interesting, they do not say much that has not been said before. Laufer & Levitzky-Aviad (2006) found that students using bilingualized dictionaries performed significantly better than students using monolingual or standard bilingual dictionaries, with similar findings for the learners in Laufer and Hadar (1997). Not incorporating a comparison group or at least referencing such research is a potential limitation. Another aspect that deserves attention is the lack of learner training prior to dictionary consultation. The field has already moved on from descriptive studies solely about what learners do with one type of dictionary; intervention studies are needed. Learner training is mentioned as an implication from the study but should have been considered beforehand, as many studies have already shown that learners often lack "dictionary savvy" (McAlpine & Myles, 2003, p. 71), "need systematic instruction in dictionary use" (Wingate, 2004, p. 5), and that learners are successful if they "employ a variety of sophisticated look-up strategies" (Chirstianson, 1997, p. 23). This has already been established. An intervention beyond dictionary versus no dictionary would have improved the design significantly.

Chen (2016) investigated the production and retention of collocations using an electronic dictionary and gapped sentences, slightly resembling Chan's (2012) study above (it is unclear if this was monolingual, bilingual, or bilingualized). While the methodology is more interesting due to the usage of keylogging software to track the exact utilization of the dictionary with every click, the implications are quite familiar in that the Chinese university student participants (N = 52) "showed inadequate

dictionary use skills" (p. 225). With Chan's (2012) description of her participants (see above) as also "deficit in dictionary skills" (p. 115), the trend in these studies continues to point the finger at the students, neither offering much in the way of original findings nor solutions, and neither exploiting the potential that the innovations in dictionary design offer and other technological resources offer. The lack of teacher intervention and learner training is also apparent in Chen's (2016) study, as the students were unable to remember collocations after one week, and the total number of lookups had no effect on production or retention.

In classroom settings, much of the pedagogical programming is determined by the teacher. Retention in both of the studies described above could have been improved by revisiting the words in a different way after three days and then again after one week, for example, as seen in Bruton's (2007) successful classroom study. The assumption that most students are self-regulated and will choose to do this on their own has recently been challenged (see Thomas & Rose, 2019), due to the realty of classroom contexts that is often forgotten when research is written up.

Friedman (2009)

Friedman (2009) is one of a few studies that truly delivers on maximizing learning potential in classroom settings. Intermediate to upper intermediate Japanese university students used the internet as a source for authentic text to build their own communal dictionary online. All of the words and example sentences were pulled from various web sources and accompanied by their own original examples. The learners then used the database that they

created to teach each other target vocabulary. Students used bilingual dictionaries to help them with the task. Most importantly, sufficient teacher support and scaffolding was provided throughout. For example, citing that the students' facility with using dictionaries was limited (see Chan, 2012; Chen, 2016 above), "dictionary orientation" (p. 128) was provided through a "controlled-entry approach" (p. 129) that enabled students to work with words initially that have only one definition. This helped to avoid confusion in selecting an appropriate definition. Over time, students were given more freedom to explore the web on their own and incorporate more abstract words with nuanced meanings. The database was populated with entries that included the word, meaning, webpage address, webpage sentence, the student's original sentence, and the student's name. Finally, the students completed a writing task incorporating the vocabulary after the creation of the database to facilitate further usage.

It would be interesting to learn more about the effectiveness of this intervention through pre- and post-tests, but as is typical of most articles in *ELT Journal*, the aim of the report is at practitioners and the length of the paper quite limited. Nevertheless, each of the limitations that I found in other studies was addressed in Friedman (2009). Nesi (2014) notes that recent research is concerned with processes involved in dictionary consultation rather than just the product of the study. To this regard, Friedman (2009) delivers by reporting the process stepwise so that practitioners can follow, while illustrating how the students exploited the technology that was available at the time. There are implications for learning motivation

as well, as learners are more inclined to see the process through by choosing their own examples. Moreover, rushed, tested conditions may cause learner anxiety. Shien and Freiermuth (2010) claim that given time, all learners at any level will benefit from dictionary usage. The flexibility of resources that learners could use (anything online as well as personal dictionaries) enhanced not only the creation of their own dictionary but also their learning in Friedman's (2009) study. This approach is reflective of "the 'sharing' nature of Web 2.0" which also leads to discussion of more than isolated lexical items, but also the entire process of searching, evaluating, compiling, and then using the items; through their own work, learners "foster indispensable digital literacy skills" (Trinder, 2017, p. 410). By participating, they are made aware of the benefits of these types of innovative technologies (Frankenberg-Garcia, 2018).

Given more space to expand on the theory, many authors may have tried to link a study like Friedman's (2009) with a detailed discussion of how it fits into Puentedura's (2013) SAMR Model, since it reaches the highest level of transformation on the framework, redefinition. However, given the lack of empirical support and questionable origins (for a critical review, see Hamilton, Rosenberg, & Akcaoglu, 2016), such a discussion has not been included here. Instead, practitioners looking to exploit the technology that is available to them should aim to include a wide-range of activities at various levels of difficulty in a progressively less assisted fashion (removing the scaffolds slowly over time).

Conclusion

Dictionary usage—or creation, as seen in Friedman's study—can be viewed as a general learning strategy with the more specific strategies falling under that umbrella. Word learning is highly variable and may require adaptation to context-specific constraints. Even in resource-poor environments, however, teachers can improve the effectiveness and efficiency of dictionary usage through the use of appropriate look-up methods, follow-up activities, and monitored use. To this regard, I leave it up to teachers in their own contexts to develop ways in which to utilize this important resource as more than just a paperweight. Those who have access to the affordances that technology brings about may want to view Friedman's (2009) study as an excellent example of technological implementation done right.

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