He, L., & Smith, J. (2019). ImmerseMe [Review]. In J. Levis, C. Nagle, & E. Todey (Eds.), *Proceedings of the 10th Pronunciation in Second Language Learning and Teaching Conference*, ISSN 2380-9566, Ames, IA, September 2018 (pp. 461-466). Ames, IA: Iowa State University.

TECHNOLOGY REVIEW

ImmerseMe

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INTRODUCTION

ImmerseMe is an online language-learning platform that offers language instruction in a variety of virtual reality–based settings. The use of virtual reality allows for more authentic representations of real-life interactions learners may find themselves in if they travel to a region where the target language is spoken. Learners select a setting and a lesson, and then virtually interact with prerecorded interlocutors. Novice learners can also participate in dictation exercises in which they repeat the words spoken by their virtual interlocutor. The speech that learners produce is recorded by the computer's microphone, transcribed automatically, and evaluated by the application. The conversation adapts based on the available responses users choose as they work through the lessons.

In this review, we provide a brief overview of the tool and then offer an evaluation of its affordances. Since the *ImmerseMe* application that makes use of VR headsets is not slated for release until late 2019, this evaluation is based on ImmerseMe's 2018 Google Chrome desktop application.

OVERVIEW

Currently, *ImmerseMe* offers learning materials for nine languages: German, Spanish, French, English, Japanese, Chinese, Italian, Greek, and Indonesian. After a learner has selected their[i] desired language, they are invited to select a lesson based on a given communicative situation. Figure 1 shows some of the possible lessons German learners can select, including buying coffee in a café or checking out at a chocolate shop.

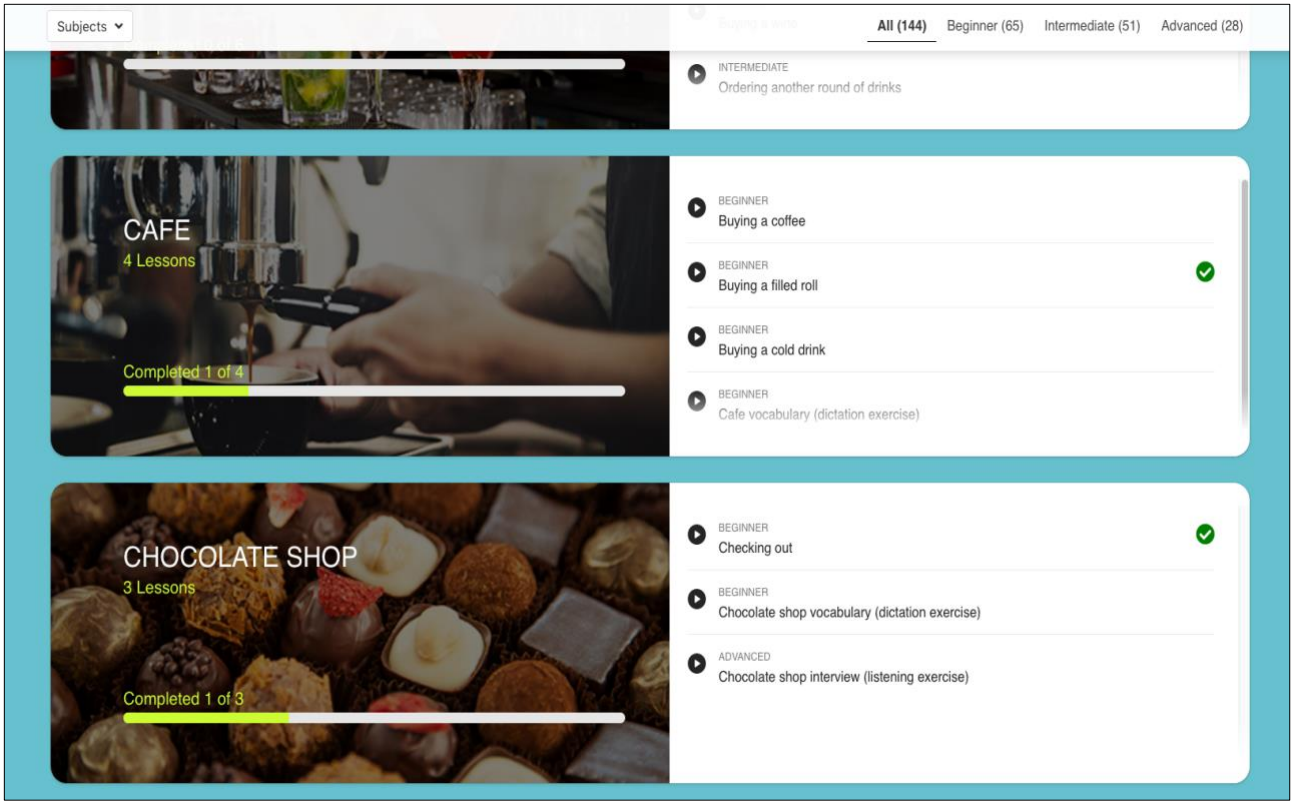

Figure 1. German-language lessons from ImmerseMe.

Once the learner selects their desired situation, they are then presented with a transcription of the interaction that will take place as part of the lesson (Figure 2). The transcription appears in both the target language and in English, allowing learners to preview the vocabulary they will need to know in order to successfully communicate in the context.

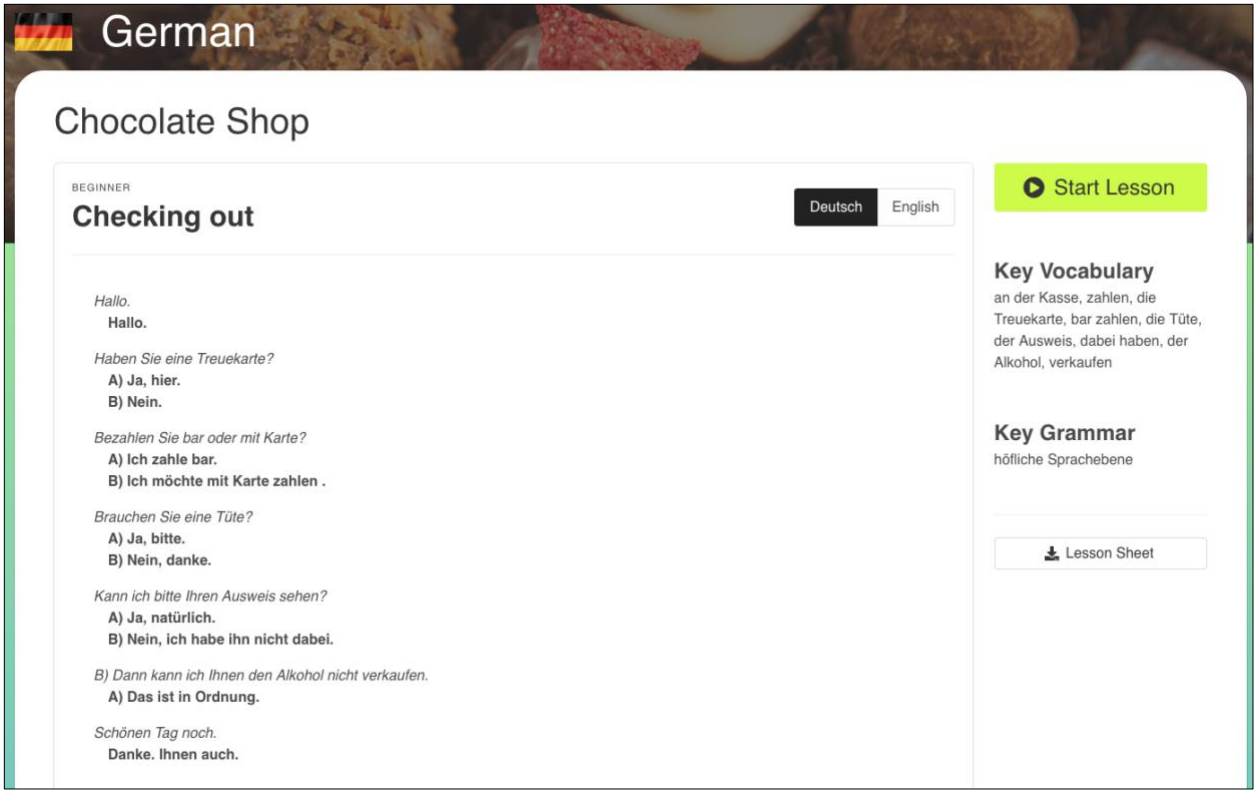

Figure 2. Transcript from one German lesson.

After the learner starts the lesson, they watch a video intended to represent a real-life communicative event (Figure 3). A transcript of the interlocutor's speech appears at the top of the screen. Once the interlocutor has completed speaking, the learner can select from one or more possible responses, transcribed in the middle of the screen. Clicking on the green microphone button at the bottom of the screen activates the learner's microphone. The learner's speech is recorded, transcribed in the field at the bottom of the screen, and evaluated. If the speech does not satisfactorily match the expected pronunciation, the learner must repeat the response.

Figure 3. Virtual interaction with a native German speaker on ImmerseMe.

All videos have been filmed using a 360-degree camera and are shot from the learner's point of view. Learners using a standard computer can use their mouse to change the view to see what is around them. Learners using virtual reality goggles benefit from an even more realistic representation of the situation, as simply shifting the direction of their gaze will change their perspective of the situation.

EVALUATION

Chapelle (2001) argues that an evaluation of a CALL task—and, by extension, tool—"cannot be a categorical decision about effectiveness" but should instead be "an argument indicating in what ways [it] is appropriate for particular learners at a given time" (p. 53). To build an argument for evaluating a CALL task, Chapelle outlines six criteria: *language learning potential, learner fit, meaning focus, authenticity, positive impact*, and *practicality*. In this section, we evaluate the website *ImmerseMe*, focusing our evaluation on what we feel are the most salient criteria from Chapelle's framework.

Language learning potential and meaning focus

Chapelle (2001) refers to *language learning potential* as "the extent to which the task promotes beneficial focus on form" (p. 55). "Focus on Form" (Long, 1991) emphasizes the need for learners to pay attention to various aspects of linguistic form while simultaneously engaging in meaning-focused communication activities. The tasks included in *ImmerseMe* lessons are intended to simulate real-life interactions in virtual representations of authentic settings. However, providing learners with preselected options to read from as they interact with the virtual interlocutor undermines the meaning-focused nature of the tasks. While some learners may concentrate on the meaning of the interactions, others will likely focus only on the pronunciation of the sentences

they are given without paying attention to meaning. It is therefore uncertain whether an adequate focus on meaning could be achieved in the tasks.

Levis (2007) points out that "[computer-assisted pronunciation teaching] systems often suffer from difficulties in giving learners adequate, accurate feedback and an inability to provide accurate and automatic diagnosis of pronunciation errors" (p. 185). Corrective feedback, one of the main techniques to accomplish focus on form (Nava & Pedrazzini, 2018), is also a feature that needs to be more organically integrated into the *ImmerseMe* application. Though the application offers a live speech-to-text preview, which is claimed to provide students with immediate feedback about their pronunciation, the voice-recognition technology does not seem to provide accurate transcription. For example, we noticed that the final word of an utterance was sometimes left out of the transcription, and that even if the pronunciation of an utterance was intentionally incorrect, the program leniently considered it as passable and proceeded to the next task, which suggests a substantial weakness in its requirement for users to "pronounce the correct answer perfectly" (as quoted in Lucente, 2018, p. 4) before advancing to the next stage. Some words in the transcription appeared in a red color, suggesting an error or other problem with pronunciation, though red-colored words did not always seem to have an effect on a learner's ability to successfully complete a lesson. As a result, the feedback offered by the program is lacking, and it is not clear how the pronunciation is evaluated.

Authenticity

Chapelle (2001) defines *authenticity* as "the degree of correspondence between an L2 learning task and tasks that the learner is likely to encounter outside the classroom" (p. 56). The design of *ImmerseMe*'s communicative events aims to put learners in an immersive environment where they can have guided interaction with native speakers. The tasks are situation specific and videos were recorded at a normal speech rate. In these ways *ImmerseMe* allows learners to feel as if they are in an authentic speaking situation (see Bajorek, 2018, for a user comment to this effect). However, the authenticity of *ImmerseMe*'s tasks suffers in important ways. For example, as noted above, the tasks do not necessarily require users to comprehend the speech they hear, as they can choose to read a transcription and/or a translation of their interlocutor's speech. Because learners are given a fixed set of responses to choose from, the tool does not allow learners to practice producing authentic responses. Instead, it may encourage learners to simply read from the screen, which can have value for improving pronunciation but not for improving communicative competence. Learners, particularly intermediate- or high-level learners, need opportunities to mobilize their linguistic resources to negotiate meaning because meaning negotiation can push learners to produce more target-like utterances (Long, 1991).

Positive impact and practicality

According to Chapelle (2001), tasks "should help learners to gain pragmatic abilities that will serve in communication beyond the classroom" (p. 57). In other words, learners could transfer what they have learned from the task to other communication scenarios. Practicing the language in a virtual scenario that mimics real-life interactions prepares learners for similar situations they will encounter in the real world. *ImmerseMe* also offers self-conscious learners who are hesitant to engage in conversations with native speakers a safe space to use the language in a virtual

environment until they have built up their confidence. However, these positive effects are not available to everyone. Since the videos are hosted on YouTube, students in China or other areas where the site is blocked do not have access to them, limiting the application's reach.

CONCLUSION

Virtual-reality technology extends learners' access to authentic language-learning experiences. *ImmerseMe* creates a contextualized environment where learners can enhance their language skills. In this review, we have offered an overview of the tool as well as an evaluation of some of its affordances. As Chapelle (2001) points out, empirical analysis is also an indispensable part in constructing an evaluation argument. As such, more empirical research on how virtual reality–enabled language-learning tools impact learning outcomes is needed.

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[i] In this paper, we use *they* as a gender-neutral singular pronoun.