Minecraft in a Self-Access Language Learning Center

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Author Biography

Robert Remmerswaal is an educator in Japan with experience teaching a wide variety of ages. Currently he teaches first year university students. He is interested in ways to engage students and keep English courses interesting. His research interests include self-efficacy, student motivation, and student adoption of new technology.

Due to the COVID-19 pandemic, access to the Self-Access Learning Center (SALC) was constantly changing at the Sojo International Learning Center (SILC) within Sojo University. This small private university in the middle of Kyushu shifted from socially distanced in-person activities to fully online and back several times during the first two years of the pandemic. When in-person activities were allowed, they were limited to talking, with games and activities with movement prohibited. While the conversation lounge was fully online, there were no materials or activities for students beyond talking to a teacher. Students had access to some online media through the SALC webpage, but these were not widely publicized or used.

The author was interested in finding a resource for the SALC that would meet three goals. First, a tool that could be used online synchronously or asynchronously. Second, a tool that could be used in-person with or without restrictions. Third, a tool that would draw new students to the SALC. Of the many tools and platforms that exist, Minecraft was selected.

Minecraft is a virtual sandbox that came out in 2009 and has been purchased more than 200 million times (Stuart, 2021). It begins as a blank world with biomes (desert, forest, tundra, etc.) being randomly generated as the world is explored. There are no set objectives, but players typically accumulate blocks from the natural surrounds and use them to build a shelter as their first goal. There are challenges available in the game, such as defeating the Ender Dragon, but these are optional. Chien (2019) describes Minecraft as, "a virtual world that relies on its players' creativity and problem-solving skills; thus, it's a virtual world that elicits from learners the language needed for problem-solving, creativity, and collaboration" (p. 3). Communication in-game is typed using a text channel. For voice, many groups or servers will use a separate voice app, such as Discord or Zoom. Others will modify their instance of Minecraft to include voice chat.

Figure 1

Screenshot of the SILC Minecraft Community Spawn Area, May 2022

Literature Review

There are several specific use cases for Minecraft as a language learning tool. One is the recently released Cambridge course which is accessed and completed within Minecraft (English Adventures, 2021). Another is vocabulary being taught to young learners (Bryant, n.d.) and university students (York, 2014). There are also a host of maps and worlds made to inspire creative writing (Minecraft Language Arts Kit, n.d.). Minecraft can be used to facilitate social interactions as it, "encourages communication, including student narratives, multimedia productions, conversations with teachers and peers" (Stevens, 2021, p. 2).

While Minecraft can be enjoyed as a single player game, users can join servers with thousands of other players. This brings Minecraft into the category of a Massively Multiplayer Online Role-Playing Game (MMORPG). Some benefits of MMORPGs in language learning have been explored in the extant of literature. Peterson (2011) credits learner participation in large network-based games as a valuable opportunity to improve communicative competence and increase second language acquisition. Peterson draws on Firth and Wagner's (1997) pedagogical view of language being acquired through social interaction. Peterson's (2011) study shows that playing a game together promotes

interaction through peer assistance which leads to co-construction of meaning. He likens these interactions to Vygotsky's (1978) zone of proximal development. While Peterson made mention of past experiments with Ever Quest II and World of Warcraft, in his study students played Allods Online. All three games led to increased dialogue in the target language.

In a study with 30 Thai university students, Reinders and Wattana (2014) found that digital games could increase students' willingness to communicate. This study used Ragnarok Online, an online role-playing game. After six sessions of group play, students reported an increase in confidence of their English, less anxiety in using English, and a higher willingness to communicate.

Beyond the use of Minecraft itself is the plethora of its related media. Minecraft has over 1 trillion views of videos across 150 countries (Stuart, 2021). In a recent study, it was found that Minecraft YouTube videos led to enriched spoken English (Chien, 2019). The YouTube videos that students watched used the 2000 most frequent words 95% of the time and the remaining 5% of words were from the 3k–14k lists. These more complex words were beyond the language that the students studied in school. The videos used the vocabulary in context which allowed students to understand and use the new vocabulary in their gameplay. Parents of young EFL learners have also made similar claims of how their children learned English (Smolčec et al., 2014). Smolčec et al. (2014) note one family observing their children becoming fluent in English through watching Minecraft videos, playing with a community, and then making their own videos to share.

How Minecraft Was Chosen

The decision to incorporate Minecraft was made using Bates' (2019) SECTIONS model. This framework was made to review technology or media for use in a learning institute. SECTIONS stands for: Students, Ease of use, Costs, Teaching functions, Interaction, Organizational issues, Networking, and finally Security and privacy. Bates (2019) suggests starting the evaluation process with a technology in mind. Evidence to support or reject the technology will accumulate and lead to a decision.

The author started the evaluation with Minecraft because of his own experience playing with his nephew. Together they worked towards a shared goal which required

discussing what was necessary for success. This led to a mix of English and Japanese with both parties learning new vocabulary in their non-native language. The author also noticed in his English courses that many student devices had Minecraft installed. Bates' (2019) SECTIONS model was considered as follows.

Students

Minecraft may not be played by all students, but its popularity means many students are likely to recognize the name. Bates (2019) asks instructors to consider if students will have equal access to the technology. With Minecraft, the minimum system requirements are quite low. A high-end device is unlikely to have an advantage over a low-end device.

Ease of Use

Minecraft can offer challenges to experienced gamers but can be learned and enjoyed by those with no gaming experience. There are many tutorials online and the game is designed to be learned through play. Bates' (2019) also warns of the reliability of a product. Microsoft is unlikely to abandon support or remove the game from the marketplace without sufficient notice.

Costs

There are three types of Minecraft: Java, Bedrock, and Education. Prices differ depending on devices, but in general, a computer copy of Java or Bedrock is ¥3,000 per person, a phone or tablet is ¥800, and Education edition is ¥500 per user per year. Additional costs include running a server to host players and control access. The cost of a server ranges from ¥0–10,000 per month depending on needs and technical know-how. The server selected for the SALC is discussed later in this paper and costs $15 USD per month. Students are responsible to purchase their own copy of Minecraft or borrow a device from the SALC to play. The school covers the monthly server costs.

Teaching Functions

The function that was of most interest was the open world of Minecraft that allows students to learn from context and share stories of what they did or hope to do. Students can also develop cooperation skills through working together on specific goals and events. Using additional tools allows communication to be synchronous or asynchronous. Game play can be quite varied which allows for varied stories and communication.

Interaction

Students can interact with Minecraft alone, with others, or with a teacher-led activity. In the extant literature, improvement in English communication came from interacting with others. To accommodate students playing alone, asynchronous activities were designed (described below) to allow students to use English after they leave the server.

Organizational Issues

At Sojo University, teachers are encouraged to find new ways to engage students in English activities outside of the classroom. Ideas must be approved, but it is not a burdensome task. One issue was running a Minecraft server without direct support from the IT department. This led to a more expensive server option, which is discussed in the next section. Additionally, exceptions to the school firewall were not granted. The author was able to find a creative way around the firewall and connect devices to the server using a guest Wi-Fi network.

Networking

Bates (2019) describes this as networking with other people. Minecraft has a text-based chat feature built-in that works across all devices. There is a speech-based add-on, but it is only compatible with computers. A Teams Channel (Microsoft's communication platform) is used with student school accounts to facilitate audio chat and announcements. Additionally, a website facilitates onboarding and reflection.

Security and Privacy

Minecraft makes it easy to host a server that is private. Each server has unique access information needed to join. Additional security can be added to restrict access to specific users or IP addresses. The server details for the SALC are posted in the Teams Channel which requires an institutional login to access.

When considering all aspects of SECTIONS, the cost for students is the main negative. Allowing students to borrow school devices with Minecraft installed mitigates this to some degree, but only when the SALC is open. The main advantage over other MMORPGs is the openness of game play; anything is possible in Minecraft. Additionally, hosting a private server allows a safe space to practice and learn. While there are other games similar or even clones of Minecraft, they do not carry the same name recognition to draw in students.

How a Server Was Chosen

Minecraft allows players on the same Wi-Fi network to play together at no additional cost. For players to share a common world from anywhere at any time, a server is necessary. The first step is to choose the versions of Minecraft to support: Java, Bedrock, or Education. Education requires a yearly subscription and licenses are purchased as an institution. The institutional pricing was not an attractive option for the SALC. Therefore, a Java edition server was selected and modified to accommodate both Java and Bedrock players.

There are a few options when setting up a Minecraft server. One option is a physical device that is owned by the individual or an affiliated institution. However, this requires that setup and maintenance is managed by a knowledgeable person. Another option is to rent space on a virtual server. Rented servers that are setup and self-managed tend to be cheaper than those that are specifically built to host Minecraft. With a Minecraft-specific server, setup takes a few minutes and requires very little computer knowledge. The main Minecraft-specific server providers also offer videos, guides, and online support to modify and run the server smoothly. It is also important to consider the location of the server. The further it is from the players the greater the delay between input and visual output. The SALC server is Minecraft specific, with a great support team from Apex, and hosted in Singapore.

How Minecraft Is Used at Sojo University

The server was soft launched in August and officially launched in October 2021 in combination with a Halloween contest. During that semester 24 unique users played, and a few additional students joined using a SALC device. A group of five students participated regularly. In the first month of the spring semester in 2022, 44 unique users joined the server. Most students who joined already played Minecraft, though a few students started playing in order to join the community. A website hosts all the information about the SILC Minecraft Community (SMC). Students can learn how to join the server, news on upcoming events, and can request a student to help them get started. The website is accessible through QR codes in the SALC as well as links within a Microsoft Teams channel. There are several ways students can play.

Solo Play

The most popular option is for students to play alone. This requires no planning for the student as they can join when they are available. During solo play, students typically build their own areas or go on quests. When another student joins there is usually a typed English exchange which includes a greeting and offering help to each other. Occasionally the conversation continues, and spontaneous group play begins.

Solo play serves as a way for new students to become comfortable in the shared world, to explore the creations of other students, and to collect resources for upcoming group events. Solo play should lead to group play, but group play does not always eventuate. This presents a risk of the server being used for Minecraft without an interest in English. If a student is negatively impacting other students, either by using other languages, being disrespectful, or causing any other problems, it is possible to ban them from the server.

Local Group Play

Within the SALC, a Minecraft area was created. The SALC is an "English Please" environment; students are meant to use English as much as possible. Typically, students will start in English and change to Japanese the first time they are searching for a word. English usage is not policed, but teachers and staff often assist students if they happen to be within earshot. Two tablets are always out on display, with controllers and three additional devices available from the SALC desk. This allows for students to play Minecraft minigames on the local network or join the server. Students can also use their own devices here.

Figure 2

The SILC Minecraft Community Area Within the SALC

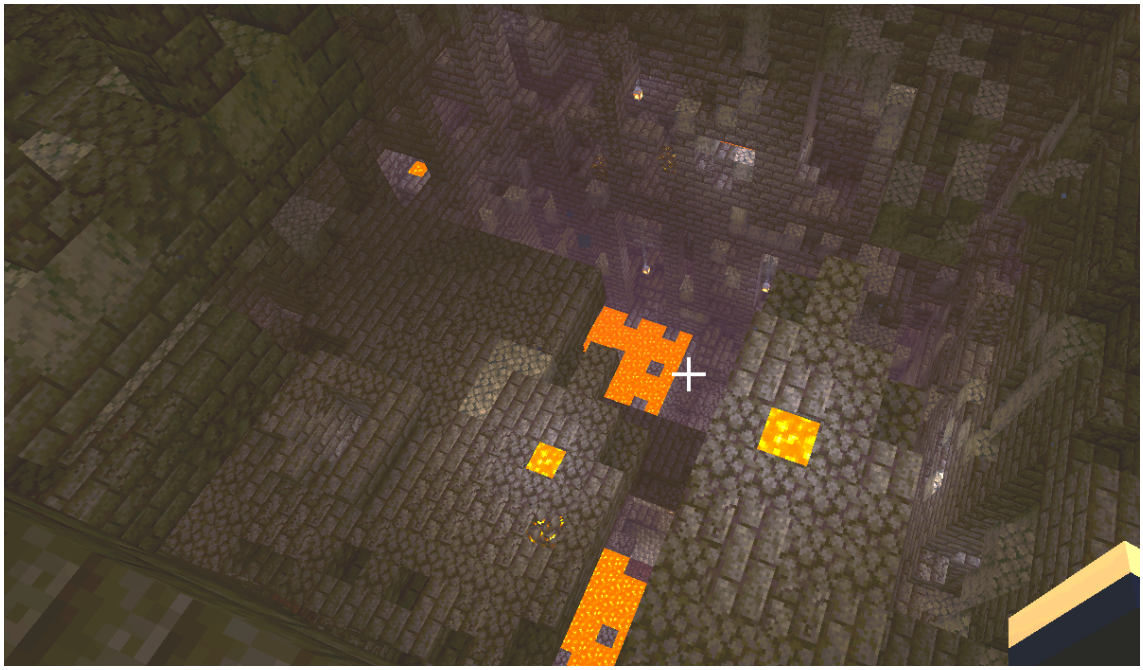
Planned Group Play

Planned group play refers to playing Minecraft at specific times with specific tasks planned before playing. A physical location is often used with a Teams call for people to join remotely. Tasks have included minigames, building a train station, going to the Nether (the Minecraft underworld), and visiting an Ocean Monument. Students

have planned small tasks with their friends but have yet to plan a shared task for the whole SMC. Group play usually involves one to two teachers and two to six students.

Figure 3

View From the SMC Nether



Events

Two main events were held in 2021. One event was for Halloween and a similar event was held for Christmas. Students created a holiday-themed building to win a prize. Instructions were provided in English and students were free to build on their designated area. Twelve students participated in these events.

Figure 3

Halloween Contest Winner

Figure 4

Christmas Contest Winner

The events were designed to have a low barrier to entry by being an individual task with a three-week completion window. The downside was the lack of communication during the events. Even when students played together, there was mostly silence as each player was focused on their individual task.

In the next event, which will include students from a Taiwanese university, building will be team based and have a 45-minute time limit. This is to encourage communication among teammates to accomplish a shared goal. Students will also give a tour of their creation, as requested by one student, before judges give a score. This will hopefully lead to more camaraderie and student-planned group play in the future.

Reflection

Reflection is used as an asynchronous activity. These are recorded stories of what students did or hope to do in Minecraft. These are optional and can be written using a Microsoft Form or recorded using Flipgrid. They can be used after any type of gameplay as a way for students to improve their English or to reach out to the community.

Both the Microsoft Form and Flipgrid reflections can be accessed through the Minecraft Teams channel, the SMC website, or QR codes posted in the SALC. Written

reflections have had a few submissions and the writers have the option of grammatical feedback, a conversational reply, an in-person discussion, or any combination of the three. The goal is to assist students in meeting their writing goals. The video reflections are submitted through Flipgrid. There have been no submissions to date, but Flipgrid is very new for students.

Conclusion

The introduction of Minecraft is still relatively new in the SALC. There is an ongoing study collecting observations and perceptions of students and teachers. Already this has led to changes in how events are structured, the perceived benefits of playing alone, and the introduction of various plugins to improve gameplay. Student feedback and teacher reflection also resulted in the physical area in the SALC for Minecraft as well as the two reflection tools. As students are observed and consulted in the coming year the results will be shared and published.

For others considering Minecraft it is important to realize that Minecraft is dependent on a community of English learners and faculty. It is not a standalone resource to put on a shelf. Creating and managing this community is likely to take a significant amount of time and effort. Before taking on such an endeavor, make sure Minecraft is a platform that you enjoy using.

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