

An analysis of commercial video game *Animal Crossing: New Horizons*' potential as a platform for learning English as a foreign language (EFL) in an extramural context

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<p>Tiivistelmä – Abstract</p> <p>Videopeleistä on muodostunut monelle mieluisa tapa viettää vapaa-aikaa ja niiden mahdollista hyötyä kielenoppimisen perspektiivistä on tutkittu laajalti sekä kielenopetus kontekstissa että informaalisti. Tutkimukseni pyrkii lisäämään tietoa erilaisten pelien ja niiden genrejen mahdollisuuksista kielenoppimisen lähteenä muodollisen opetuksen ulkopuolella. Vaikka videopeleistä kielenoppimisen välineinä on tehty tutkimuksia, yksittäisten pelien tarjonta ei välttämättä anna realistista kokonaiskuvaa tietyn genren peleistä. Tämän takia tämä tutkimus koettaa laajentaa tietämystä siitä, millaisia kielenoppimisen alustoja erilaiset simulaatiogenren pelit voivat olla. Tavoitteena onkin selvittää, sisältääkö <i>Animal Crossing: New Horizons</i> -videopeli ominaisuuksia, jotka saattaisivat luoda kielenoppimiselle toimivan alustan.</p> <p>Tutkimus lähestyy pelin pelaamisen pohjalta muodostettujen henkilökohtaisten muistiinpanojeni ja pelistä ottamieni kuvankaappauksien muodostamaa datakokonaisuutta analysoimalla pelialustaa <i>affordance</i>-käsitteen (kielenoppimisen affordanssi tai mahdollisuus) ja kielitaitojen eri osa-alueiden kautta. Aineiston analyysi on laadullista ja se etenee kirjallisuudesta sovelletun analyysiproseduurin askeleita mukaillen sen sisältämiin kysymyksiin. Analyysiprosessi keskittyy pelin mekaniikkojen, narratiivien, tavoitteiden, sääntöjen, sekä pelissä kohdattavan kielen tarkastelemiseen ja pelin yleiseen arviointiin.</p> <p>Tutkimuksen yksi päähuomio oli, että tarkasteltu peli voi tarjota monipuolisia mahdollisuuksia kielenoppimiselle. Pelin keskeiset mekaniikat, kuten oikean ajan mukana kulkeva kello ja mahdollisuus moninpeliin internetyhteyden välityksellä avaavat mahdollisuuksia pitkäaikaiseen pelikokemukseen kohdekielellä. Pelikokemuksessa esiin nousevia teemoja, jotka saattavat tukea kielenoppimista ovat kustomointi, persoonalliset kokemukset sekä pelin asettamat pitkäaikaiset ja lyhyet tavoitteet, jotka motivoivat pelaajaa. Myös interaktiivisuus pelin hahmojen kanssa sekä narratiivien ja teemojen luoma konteksti saattaa mahdollistaa kielenoppimista pelin kautta. Tutkimuksen toinen keskeinen tulos oli, että kielitaidon osa-alueista erityisesti lukeminen ja sanasto ovat pelin tarjoamia kielenoppimisen mahdollisuuksia, sillä yksinpeli ei sisällä puhumista tai kuuntelemista. Tutkimuksen keskeiset johtopäätökset ovatkin, että <i>Animal Crossing: New Horizons</i> voi parhaimmillaan tarjota englantia vieraana kielenä oppiville toimivan alustan kielenoppimiselle vapaa-ajalla sen sisältämien affordanssien ja kielen osa-alueiden myötä.</p>	
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1 INTRODUCTION

In this study I will be analyzing the language learning potential of *Animal Crossing: New Horizons* by examining its features and affordances in the context of extracurricular language learning. Whilst the connection between video games and language learning has been studied in the past (see Peterson 2013; Reinders 2012; Reinhardt 2019 for an overview) it is important to learn more of the potential benefits that video games representing different genres can have with respect to language learning outside the school context. Video games provide a voluntary and enjoyable pastime for many (e.g., Sylvén and Sundqvist 2012: 303) and researching their affordances in a potentially motivating context is certainly meaningful for the purpose of designing varying applications for their usage. In addition, creating discussion around specific video games and their affordances in comparison to other video games or language learning platforms could further the research into the effectiveness of different language learning sources.

The present study will approach the topic of language learning from the perspective of English as a foreign language. Furthermore, it will aim to answer questions about which features, gameplay mechanics, and other contents of the game can involve potential for learning English. The different aspects of language proficiency, such as writing or reading the game offers learning opportunities for, will also be analyzed. Overall, the core purpose of this study is therefore to analyze the game to identify which specific elements could make the game a suitable platform for learning English as a foreign language during learners' spare time.

The game examined in this study, *Animal Crossing: New Horizons*, was chosen as a result of both personal interest and experience and of the reports of the game's success on the market and its expansive and varied player base. For example, it was reported by Brown (2020) on *Nintendo Wire* that according to Nintendo's fiscal report reaching until the 30th of September 2020, *Animal Crossing: New Horizons* had sold 26,04 million copies worldwide since its release (March 2020). In addition, Heather (2020) reported on *Nintendo Wire* that according to Nogami, the creator of the series, the gender split of the players was approximately half and half and that the users of the game are not only young children but also many young adults.

In Section (2), I will introduce the key concepts, relevant research background, and framework for the present study. In Section (3), the aims and methods that will be applied will be defined before progressing to the analysis of the collected data in Section (4). The implications of the analysis will then be discussed in Section (5) by comparing the results of the present study to other studies and evaluating the findings.

2 LITERATURE REVIEW

2.1 Defining language learning and its different areas

Before delving into the topic of video games and how we may learn language from them, with the help of studies and theories that are relevant to the present study, I will introduce how languages, especially foreign and second languages, are learned. As Reinhardt (2019: 102) points out, the study of how a second language is learned in the field of second language acquisition (SLA) can be different depending on the perspective adapted. The present study will combine the most compatible views of how language is learned as its core framework, most of which involve the ecological perspective in which the notion of affordances is a central concept. The ecological perspective, according to Reinhardt (2019: 111) consists of perspectives that “consider language and learning as involving situated, contextualized processes that are both cognitive and social.”

The skills involved in language learning that could be attained through a language learning process include the productive *writing* and *speaking* skills and the receptive *reading* and *listening* skills (e.g., Miralpeix and Muñoz 2018). While not every category of language skill is relevant to the features the game offers for language learners, at least to the same degree, the present study will attempt to evaluate how the game may offer these opportunities from the perspectives of the four main skills. Additionally, the aspect of *vocabulary* will be assessed. This is because, as Miralpeix and Muñoz (2018: 15) point out, the vocabulary size of the language learner is related to the four skills and also the overall proficiency of the learner.

The present study will adopt the perspective of language learning in an extramural setting, which according to Sylvén and Sundqvist (2017: i, ii) involves language learning activities that occur outside of the context of institutions (such as schools) and in which the learner is responsible for the choice of performing the activity. In addition, they mention nowadays it is common that the language learning process takes place in such non-institutionalized environments. This is also the reason why researching the extramural dimension of language learning through video games is important: it can help us discover more of the opportunities presented by video games.

2.2 Language learning through video games

The connection between language learning and playing video games has been widely studied. Sylvén and Sundqvist (2012: 304) have argued that according to research in the field, there appears to be a potential relationship between the two. Different skills such as strategic skills, problem solving or reading, among others, and learner motivation may all be enhanced by computer games (de Aguilera and Mendiz 2003: 11). Gee (2007: 28) describes video games as a platform that could involve a learning process that is both engaged and deep. Furthermore, Chik (2012: 109) identifies that online interactivity with gamers from other parts of the world could offer “authentic reasons and opportunities for active English learning and use”. These possibilities will be discussed next by explaining how video games are related to language learning and how language learning can happen in extramural contexts.

2.2.1 Specifying video games and their relation to language learning

In order to discover the potential a certain video game has, the concept of language learning through video games should be explained and specified in detail. There are, in fact, varying definitions for what a game is. According to Reinhardt (2019: 87), games can be categorized on the basis of their different formats, such as tabletop games, party games or different sports, among others. However, the present study will focus on digital games only, which, as described by Reinhardt (2019: 88), nowadays includes game software controlled on various hardware platforms, for example, consoles or different mobile or PC-related sources. The game examined in the present study, *Animal Crossing: New Horizons*, is a commercially released vernacular game, meaning that it is a game that, according to Reinhardt and Sykes (2012: 32), is not released for language learning purposes. Furthermore, as noted by them (2012: 35), learners may experience vernacular games as a relatable routine task that native speakers also participate in.

Central aspects of video games from the perspective of the game analyzed in this study include such themes as rules, goals, and central gameplay mechanics. These may vary by game. Prensky (2001: 118–124) hypothesizes different elements found in games that may positively affect language learning. These include, for example, the motivation affording goals set by the game,

engagement inducing story or representation, outcomes that increase emotional investment into the game, and social interaction.

The notion of *themes* is also present in games. For example, Reinhardt (2019: 89) notes that they are a global feature of games. He goes further to explain that themes are essentially the imagined context provided by the game's subject or setting and that their concepts can vary infinitely as long as it can be created into a narrative. The themes of *Animal Crossing: New Horizons* include friends, daily life, or life on one's own island for example. Furthermore, the themes and narratives of the game are also important because they create the context for the language content that the learner will engage with.

2.2.2 Language learning through video games in extramural settings

Learning a language through video games involves various aspects that can be examined from the perspective of gaming during one's spare time, as well as from a more general point of view. For example, the motivation of a person who plays video games could, as Sylvén and Sundqvist (2012: 303) point out, be elevated if the player has personally chosen to play it in their free time and they may attempt achieving good results in the game. On a more general level, Gee and Hayes (2011: 70–71) point out the possibility that learners who play games during their spare time have the ability to approach progress in their literacy skills in the tempo they want. In addition, Sylvén and Sundqvist (2012: 305) hypothesize that learners of English who play regularly could acquire parts of the knowledge they have in the language by playing, since the language provided in the game needs to be understood for the purposes of playing the game.

There have been positive findings regarding the potential that games have for language learning. For example, Sylvén and Sundqvist (2012: 314–315) found a positive correlation between time spent gaming at home and vocabulary test results. Similar results regarding test outcomes were also acquired by Jensen (2017: 13) who studied the English language learning resources of gaming for young children. In addition, Eskelinen (2019: 90) discovered that young Finnish adults who played single-player video games informally were motivated to learn the second language provided in video games as a result of their wish to enjoy the game and its story more and to do well in the game. The extramural potential of MMORPGs (massively multiplayer

online role-playing games) was examined in Yaşar's (2018) literature review on the topic, and he concluded that such themes as representation by avatar, platform for creativity, and needing to collaborate through challenges are all identified as positive factors for language learning. Researching a video game from this point of view could, therefore, be a gateway into finding or producing video games that offer opportunities for positive language learning.

2.3 Affordances in video games

Video games can offer their players varying gameplay methods, narratives, opportunities to use and interpret language in different forms such as written text or spoken language, and they may include the single-player or multiplayer mode, or even both. The potential variance opens the door for the concept of *affordances*. The notion of affordance is exemplified by Reinhardt (2019: 111–112) as follows: “For example, given the right ecological conditions, the design of a button affords pressing by a finger, and a pencil affords writing (and erasing if it has an eraser) by hand.” In the context of game mechanics as affordances, Reinhardt (2019: 113) suggests that these features and mechanics that appear in a chosen game could be examined from the perspective of how they afford L2 learning dynamics and he goes on to explain eight affordances from this approach. As it provides a clear and diverse basis for discovering varied language learning related aspects of the game, the present study will use the list of affordances provided by Reinhardt (2019: 114–115) to evaluate the potential of *Animal Crossing: New Horizons*' language learning affordances:

Table 1. Reinhardt's affordances and summaries of their meaning

1. Contextualized Language Learning	Learning associations for vocabulary through multimodal contexts in narratives that create motivation.
2. Time for L2 Use and Learning	The game's mechanics that allow the player to control time for increased language learning opportunities. For example, repetition for comprehension or choosing when to continue.

3. Space for Sheltered Practice	How the game shelters practice around language. This includes the notions of gradual progress and learning, tutorials, and scaffolding.
4. Goal-Oriented Learning and Feedback	Language learning as a result of the meaningful goals, tasks, and levels the game offers and the (constructive) feedback the player receives as they work toward and complete these goals.
5. Opportunities for Language and Social Collaboration	The opportunities the game offers for communicating and collaborating with users of the target language. The game's included tasks or dynamics that encourage working together through language.
6. Means for Identity Work and Play	<p>Identity Work: development and integration of a learner's identity with identities that already exist. May include roles the player is assigned and encounters.</p> <p>Identity Play: the ability to assume identities that differ from the player's own identity as a form of experimentation. Often includes the creation of an avatar and personalization.</p>
7. Time and Place Independent and Dependent Learning	<p>Independent: the ability to play alone or with others regardless of time and place (aided often by mobile technologies and connectivity). It may encourage casual gaming and interaction with others.</p> <p>Dependent: Playing the game can be tied to a location or time (e.g., GPS technologies tied to a game's functionality).</p>

8. Extramural, Autonomous Learning	Opportunities for learning independently outside of institutions, potentially leading to increased skills related to learning languages autonomously.
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There has been some research on the affordances provided by specific video games. For example, Newcombe and Brick (2017) identified several potential affordances in the simulation video game *Cities: Skylines*: According to them, the learning process of vocabulary items and passive language skills can be aided by such features as reoccurring interactions and instruction (Newcombe & Brick 2017: 82). In addition, the gamer's gradual access to new in-game features, such as increasingly advanced appliances and the context specific vocabulary that the player must be familiar with to play *Cities: Skylines* can be conceived as affordances for language learning (Newcombe & Brick 2017: 79, 82).

Additionally, a study by Hourdequin (2020) on the game the present study examines, *Animal Crossing: New Horizons*, reflects on the potential affordances the game has to offer for developments in children's bilingual literacy and social learning. Through experiences in his own bilingual family, he identified that the game may afford learning English through the text included in the game and that the game offers opportunities for communicating and collaborating locally offline, online, and around the game as a conversation topic (at school, for example). Hourdequin (2020: 201) also notes that in their family, *Animal Crossing: New Horizons* is a daily source for development in literacy through interactive and creative play.

2.3.1 Simulation games and their affordances

The video game examined in the present study, *Animal Crossing: New Horizons*, is a digital game that could be defined as a game in the simulation genre. However, Reinhardt (2019: 91) points out that, as a result of factors such as their dynamic nature and how they are deemed socially, the specification of the genre of a game may be challenging. Additionally, he notes that there are different hybrid genres that could be difficult to define in a general manner. A definition for simulation video games could be formed through the typical elements that the games commonly share, which Reinhardt (2019: 93) describes to be a system, or a

representation of one, that can be managed or built by the player. To summarize, the simulation genre could be described as one that often operates around a world or situation (such as serving coffee in a coffee shop or farming) where the player has the central role of controlling the system, which might often be inspired by real life, in some manner.

The potential language learning affordances provided by the simulation genre could, according to Reinhardt (2019: 93), include the elements of organizing, strategizing, planning, understanding the rules, and estimating consequences. Juul's (2005: 36) definition of a game includes the notion of emotional attachment to the result of the activity that the player has attempted to achieve through his or her effort. This emotional attachment could also apply to simulation games because the player's activities often appear to include such tasks. In addition, de Aguilera and Mendiz (2003: 8) point out that according to previous research, the player's intellectual development may be fostered by simulation games. These insights from previous research serve as reasoning for exploring the language learning potential of a video game belonging to the genre: there can be multiple beneficial elements and resulting outcomes in simulation games for language learning purposes.

Other simulation games, such as *The Sims*, have been studied from the language learning perspective (e.g., Miller and Hegelheimer 2006; Ranalli 2008) but exploring the potential of the genre as a whole could be important for further evaluation, since it could reveal commonly shared or especially beneficial aspects of the games. Therefore, this is one of the reasons I will be analyzing *Animal Crossing: New Horizons*. The results of the present study could help us to evaluate more clearly whether or not the game under investigation in this study compares to other simulation video games in terms of its affordances, both offline and online features among others. As Reinhardt (2019: 97) argues, similarities between the game mechanics within a video game genre tend to appear but the dynamics of the gameplay itself may vary greatly if there are some differences in the mechanics. Whilst generally speaking *Animal Crossing: New Horizons* belongs to the simulation genre, Reinhardt (2019: 97) goes on to say that it is the mechanics of the game, not the genre as a whole, that ultimately affect its language learning affordances.

3 THE PRESENT STUDY

3.1 The aim and the research questions

The aim of the present study is to examine the language learning potential of the digital game *Animal Crossing: New Horizons* in the context of EFL in an extramural setting in order to identify and evaluate the varying foreign language learning affordances of digital games belonging to different genres, gameplay styles, and target groups. Researching a variety of games and their potential for foreign language learning can provide useful insights into the problematics of language learning, since different language learners may have varied preferences. As Kronenberg (2012: 53) points out, video games that suit language learning in most contexts are few and far in between especially since a large amount of video games are released yearly. Therefore, the present study will attempt to investigate the game in question to analyze the potential of its usage for language learning purposes, and, with that, make an effort to contribute to research into which kinds of games could be suitable for this purpose.

The research questions are as follows:

- 1) Which gameplay and language features of the game support learning English as a foreign language (in an informal context)?
- 2) Which areas of language proficiency does the game provide learning affordances for?

3.2 The data

The game examined in the present study, *Animal Crossing: New Horizons*, was selected as the data for this study for multiple reasons. Firstly, through my own experiences of the game I noticed features that could prove useful for language learning situations, such as the instances in which language knowledge is required to understand, and / or fully enjoy playing the game or gameplay features that may encourage and motivate the player to return to the game, and therefore, to its language content, too. Secondly, as a life-simulation video game that offers both single player and multiplayer opportunities, it also offers opportunities for both interaction with in-game characters and other players who may use the English language to communicate

in different ways, written or spoken. Overall, as a recent, commercially successful game, it offers an interesting viewpoint into the potentials of the game genre it belongs to.

The game, *Animal Crossing: New Horizons*, is a video game in which the player moves to a deserted island along with animal residents, and the player is given freedom to live their life on the island however they want. The player is, however, tasked with upgrading the island and its community at their own pace. In addition, *New Horizons* includes many activities for the player, such as fishing, decorating, and talking with neighbors. Integrally, the game's in-game clock advances with the real-life clock and many of the game's features are centered around the mechanic, with seasonal and daily events. Researching this game specifically is interesting not only because of its vast player base and mainstream success, but also because of its varying, unique mechanics within its genre and the potential dynamics that surround language use and learning.

The data collected from the game consists of observations of gameplay elements available for the players of the game, observations of instances where language and its usage appear in different forms, and screenshots of the game screen. The overall observations are collected as notes during gameplay. In addition, the screenshots are collected throughout my personal gameplay and I will select the screenshots provided in this study to showcase the typical features of the language and gameplay in relevant places to present the analysis of the material. Some of the screenshots are gathered from multiplayer sessions with other players, and their permission was asked to use their messages in a manner that does not reveal their identity. The players granted me with a permission to use the screenshots as data. Although the game offers multiple options for languages, the present study considers only the English version of the game as it is the version that has been under observation and it is needed to answer the first research question. The amount of data collected is limited to identifying the relevant elements / opportunities and examples of language in context.

3.3 Methods of analysis

The analysis of the data collected will be conducted by examining them through the concept of language learning affordances, more precisely the affordances suggested by Reinhardt (2019), as well as theories that showcase video games' potential for language learning overall. Reinhardt's (2019: 114–115) list of affordances includes *Contextualized language learning*, *Time for L2 use and learning*, *Space for sheltered practice*, *Goal-oriented learning and feedback*, *Opportunities for languaging and social collaboration*, *Means for identity work and play*, *Time and place independent and dependent learning*, and *Extramural, autonomous learning*. In addition, the present study will analyze the gameplay and language data from a qualitative perspective to identify them and their potential relevance to a language learner. The qualitative perspective was also chosen as the players of the game may employ different playstyles and in those cases the amount of language in a certain format (for example written or spoken) may vary in the amount encountered.

To guide the note making and aid the analysis process, I will first use the following steps proposed by Reinhardt (2019: 100) for the investigation of the language learning potential of a video game:

- What is your overall evaluation of the game— what makes it good, bad, or both?
- What are the goals of the game? What are the rules? How do you learn what they are, and how much L2 use is involved in learning them?
- What are the game's designed narratives? What are the settings, plots, and characters? How does the game encourage you to engage with these narratives, and how much L2 use is required?
- What game mechanics are designed into the game? What game features or elements are there? What dynamics emerge during gameplay (e.g. 'having fun', 'cooperation', 'competition', 'strategizing', 'problem solving', or 'motivation'). How do game mechanics and player behaviors contribute to these dynamics? Which of these involve language use and learning?

4 ANALYSIS

In my analysis I will first follow the project steps proposed by Reinhardt (2019: 100) whilst connecting the findings to the concept of affordances. I will then inspect the findings and affordances from the perspective of different aspects of language proficiency.

4.1 Overall evaluation of the game

Generally, *Animal Crossing: New Horizons* appears to offer an experience largely based on personal player experience through an extended period. In my view, the game has various strengths that may create an enjoyable extramural gameplay experience. One of these is the freedom that the player is presented with as the game offers a customizable and personal world. In addition, the game appears to be designed to be played at one's own pace as the game does not include a definite ending and allows the player to freely decide what to do.

From a language learning perspective, the game includes many elements that offer opportunities for learning English through various means. In addition, there appears to be a focus on interaction, social behavior with in-game characters, and written language material in the game. This language mediated interactivity could be seen as one of the main appeals of the game. As a video game designed for extramural gameplay, the game seems to have central game mechanics that offer a space for continuity and a relaxed platform for creativity and practice. In my view, this connects the game to the affordance of *autonomous, extramural learning* (Reinhardt 2019: 135–146) as the language learner can learn language informally through playing the game in their spare time.

The affordance of *time/place (in)dependent learning* (Reinhardt 2019: 132–135) could also be relevant to note as playing *Animal Crossing: New Horizons* is not fixed to one place as the *Nintendo Switch* or *Nintendo Switch Lite* systems can be used as portable handheld consoles. Interestingly, Reinhardt's (2019: 133) point about "casual social networking games" affording encouragement to casually return to the game seems applicable to the game as the player needs to wait for progress and many events are tied to real-life time.

4.2 Goals and rules of the game – how can you learn English?

Animal Crossing: New Horizons appears to offer both long-term goals and short-term goals for the player to complete. Whilst the game does not explicitly require the player to complete these goals, they are expected for accessing certain features of the game and items. The overarching objective the player receives is to improve the originally deserted island for the residents, including the player(s), to live on. The player is given the role of an *island representative*, which provides them the opportunity to have control over the development of the island. In the earlier parts of the game, I discovered activities leading to these improvements to include such gameplay as collecting materials, decorating the island, or inviting residents to live on the island. As the player is required to take an active role and they have control over the development of the game, they might feel invested and a sense of agency. This may also connect to the affordance of *identity work and play* (Reinhardt 2019: 129–132) as the player is offered a role and a personalized experience.



Figure 1. The player is given the task of upgrading the island

To progress forward in the game, the player is expected to understand what is required of them and the game offers the rules they need to follow through text. If the player is unsure about what they should be doing, they can ask for tips and reminders. This is one of the opportunities for experiencing the affordance of *time for L2 use and learning* as Reinhardt (2019: 120) notes that the ability to stop or repeat are part of the affordance. As the goals, large or small, often have to do with interaction with characters, the player may be able to encounter opportunities

for learning language, such as vocabulary, from the text. In addition, the affordance of *places for sheltered practice* (Reinhardt 2019: 122–124) may be relevant as the game slowly adds more features as the player progresses and offers tutorials as new gameplay features are added. This means the player has an opportunity to pace their learning of the game and the language that surrounds it.

The short-term goals in playing the game can include activities such as completing requests for the in-game characters, island residents, such as delivering a present to another resident on their behalf or catching a fish or a bug that they want. Other daily activities that the player can strive to complete can vary depending on the day, time of day or the season. For example, on some days, the island may have special characters visiting that may ask the player to complete tasks for them. These special characters can appear randomly, on a given day, or during an event, such as Turkey Day (Thanksgiving). An example of these smaller goals set by visiting characters would be to create an outfit to match a theme or catching fish of a certain size as pictured below:



Figure 2. A special visiting character offers a fishing challenge for the player

In addition, the game provides a purpose for completing mundane tasks, such as catching a certain bug, donating fossils to the museum or even playing the game for a certain number of days, in the form of an achievement system called *Nook Miles*. These are a form of currency that can be exchanged for special items, customization options or DIY recipes. The player can

receive these for completing tasks and goals, which could motivate the player and provide them access to different situations where language is encountered.



Figure 3. The player can follow the progress they make on the Nook Miles achievements

From the perspective of language learning, the goals that the game offers for the player to work toward have often to do with what is required to reach them. For example, the player is rewarded for completing different actions in the game world that require them to talk with residents:

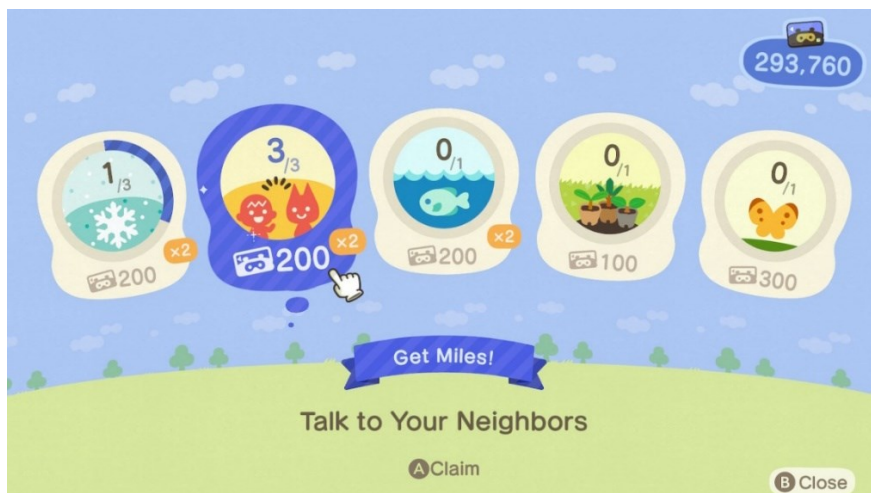


Figure 4. Some of the Nook Miles goals encourage interaction with in-game characters

Based on these points, the language learning affordance the game's goals offer could include *goal-oriented learning and feedback* (Reinhardt 2019: 124–126). In my view, it seems to be showcased in the progressive quest-like tasks that are rewarded with often exclusive items or the currencies of money (bells) and Nook Miles that can be redeemed for items, DIY recipes or even tools for progressing.

The overarching rules of *Animal Crossing: New Horizons* are difficult to identify, as compared to games such as chess, it does not appear to be dependent on rules. Rules can, however, appear in tasks that are completed for the in-game characters. For example, these rules can include limitations such as delivering a present within the current real-time day. It should, however, be noted that the game does not have one correct manner of playing the game, as the player is given the freedom to do what they wish to do at a given time. And whilst many of the events are time-locked or require the player to complete tasks, the player does not always need to follow a given order.

4.3 The game's designed narratives

As mentioned earlier, the setting of the game is a previously uninhabited island that the player can name and design. The environment of the island changes depending on the changes made to it by the player and the season or time of day as the weather and encounterable characters or collectables can shift as the hour changes. The plot of *Animal Crossing: New Horizons* follows the development of progress on the player's island as developing the island through goals offers progression in the possibilities the player has to continue the development process. It should however be mentioned that in my view the game does not appear to intensively focus on a plot, but, instead, it employs the narrative as a vehicle for gradual progress.

The characters that the player encounters on the island include a set of up to ten neighbor animals that may differ from the neighbors that other players have on their islands. These neighbors have different personality types, such as lazy or snooty, that determine the types of dialogue they will have with the player character. In addition, the game includes animal characters with more central roles, such as shopkeepers, airport or museum staff, and characters

tied to events, such as Easter or fishing tournaments, among others. Interacting with the characters of the game is encouraged as they present the player with tasks, goals, and instructions to proceed or fully experience the game's content. For example, the raccoon character *Tom Nook*, who is the organizer of the *deserted island getaway package* (premise of moving to the island) that the player partakes in, provides the player with tips, goals, and tasks to complete.

4.4 Game mechanics and game features

Through playing the game I discovered different game features that could motivate the player to play the game and encounter instances of language within the game. One of these was the inclusion of various opportunities for customization and creating a personal experience, such as designing the player's own house internally and externally. In addition, the player can decorate the island through such means as displaying items or terraforming (creating / filling in rivers or waterfalls, or building / tearing down cliffs) through the *Island Designer* in-game app. Other instances of customization include, for example, changing or designing clothing and other patterns.



Figure 5. The player character has chosen the place where an incline will be built

These opportunities for customization may increase the feeling of agency in the player as they have the ability to personalize and connect to their character and the results of their actions. In

addition, the freedom to create a character and a personal world could connect to at least the identity play aspect of the language learning affordance *identity work and play*, as Reinhardt (2019: 130) points out that by creating an avatar the player can experiment with identity.

In connection to customization, the DIY crafting mechanic of the game introduces opportunities for a personalized experience and opportunities for language learning. The player needs to collect the instructed materials to craft certain decorative items and tools, such as a fishing rod or a net. Different DIY recipes can be acquired through various means and some of them require the player to finish a given task (e.g., in events). The names of the items available for crafting and the materials needed are connected to pictures of the item or material, which may help the player learn vocabulary.



Figure 6. The DIY crafting screen provides information about crafting the pictured item

Animal Crossing: New Horizons' inclusion of the real-time clock that follows the date and time of the real world is a game mechanic that many of its features are connected to. The mechanic appears to be central for enjoying the game to its full potential as many of the events, such as Toy Day (24th of December), are tied to specific dates and waiting for development in real time is commonplace. In addition, what happens each day is randomized, and different players may encounter different events or characters. The player is therefore expected to return on a regular basis to progress in the game and enhance their experience. From the perspective of learning

English, returning to the game daily could provide an opportunity for repetition of language content over an extended period.



Figure 7. Tom Nook announces the date and time when the player begins playing the game

One of Animal Crossing: New Horizons' main features may be interaction with in-game characters. The language content that the player encounters when talking with these characters can vary depending on the personality of the character, the environment, or seasonal topics, among others. The conversations had with the neighbor characters, for example, can contain mundane topics such as comments on the weather or telling the player's character about their dreams, for example. These conversations appear to be randomized, which could encourage the player to interact with them often.

The conversations with in-game characters vary in length and often contain opportunities for the player to either choose an answer to a question from a short list or, more rarely, type their own answer. These conversations can consist of different sequences of the in-game character asking a question, the player answering, and the character responding to the given answer, but also longer interactions where the player must respond multiple times as the conversation progresses. Although most of the time the player can only choose their answer from a list, they could feel involvement and a social role when partaking in the conversations.



Figure 8. The player can reply to questions asked by neighbors



Figure 9. The player can use the on-screen keyboard to type the answer they want

Many of the conversations in the game can be encountered on multiple occasions and important conversations can be repeated. The opportunity to control when the text progresses and to choose to repeat what has been said connects to the affordance of *time for L2 use and learning* (Reinhardt 2019: 120–122) and could be relevant for learning the language content of the game.

The game also offers an opportunity to play with other players offline or online and multiple methods of communication. Up to eight players can visit each other's islands simultaneously and they can choose to converse through text or speech, which in turn may afford the player

with access to the skills of writing, speaking, listening, and reading with other English users. The players can type messages through the keyboard provided within the game and they appear on the screen for everyone to read. After they have disappeared, the recently sent and received messages can be read through an app on the in-game phone.



Figure 10. The messages sent by the players are shown on the screen in speech bubbles



Figure 11. Previously sent messages can be accessed from an in-game phone app

Alternatively, the player can use the *Nintendo Switch Online* app on their smartphone to connect to the game and type messages through their phone with similar results in game. The app is also the official source of voice chat with other players as it allows the players that have joined the same online gameplay session to talk through their phone's microphone.

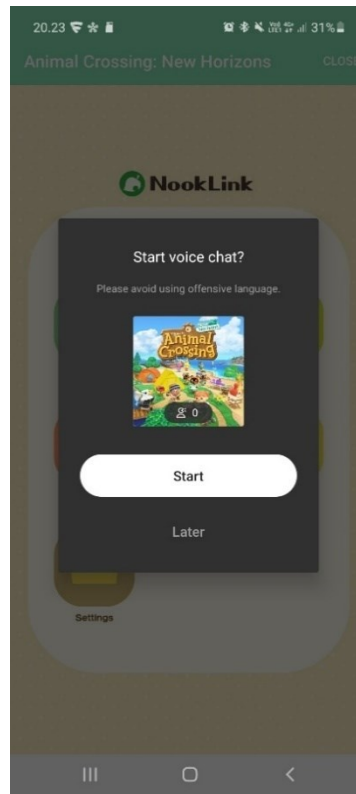


Figure 12. The external phone app allows voice chat with other players playing the game

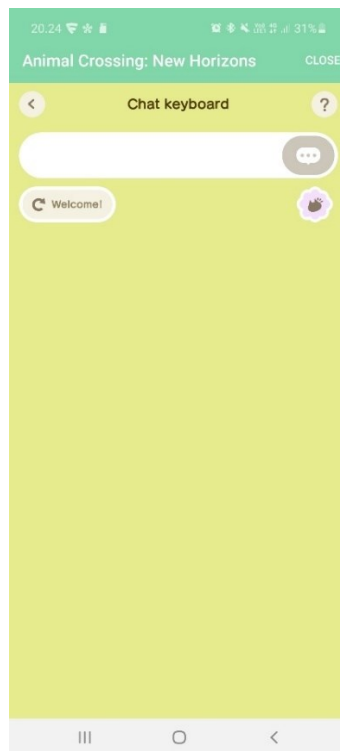


Figure 13. The phone app offers the player an alternative keyboard for typing messages

Another alternative method of communication that the game offers through either an in-game feature or the smartphone app is a messaging system between players who have registered each other as *best friends* within the game. This allows the players to send messages to their selected best friends who are currently online without the need to visit each other's islands. These messages show up on screen and in the message log similarly to the messages sent in direct multiplayer sessions.



Figure 14. The player can send messages to registered *best friends* that are currently online

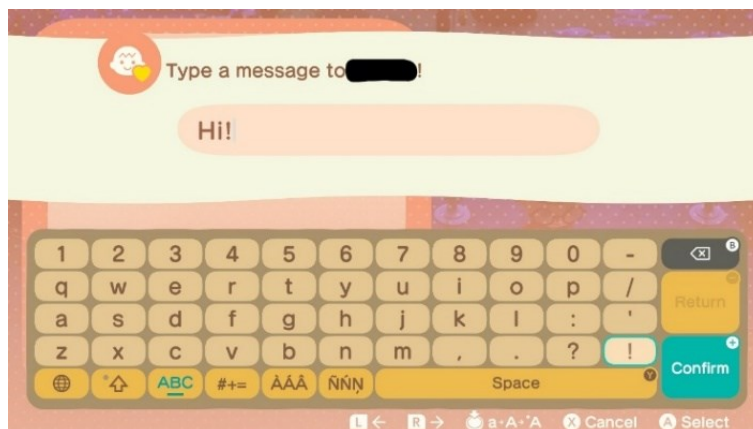


Figure 15. The in-game keyboard is available both in multiplayer and when messaging *best friends*

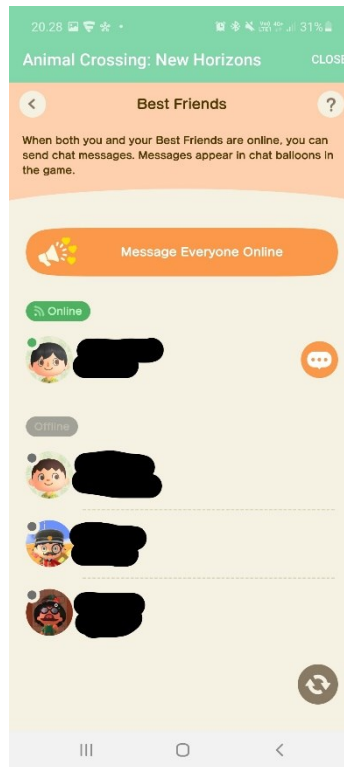


Figure 16. Alternatively, the player can use the phone app to send messages to *best friends*

In my view, these methods of communication through multiplayer may reflect the affordance of *linguaging and social collaboration* (Reinhardt 2019: 126). Although the social collaboration aspect may be questionable since the explicit nature of the multiplayer experience is not to work together to achieve goal, there are features that also connect to it. For example, trading unique items, DIY recipes, maximizing rewards from events that encourage social collaboration, and profiting from the stock market system incorporated into the game might evoke collaboration.

4.5 Aspects of language proficiency in the affordances

The game appears to offer various opportunities for the player to encounter language, although the amount varies with different areas of language. Throughout my personal experience with the game, I found reading written language to be the most common form of language skill as the player often interacts with in-game characters, reads descriptions for items and other collectables. Through reading in-game texts, the player may be able to learn vocabulary from

multiple topic areas, often including vocabulary from daily life, such as furniture, fashion, or movies. As many of the vocabulary items are necessary for understanding what is said, the player might be encouraged to discover their meaning. Often, there are also visual cues to what the item is referring to, supporting the affordance of *contextualized language learning* (Reinhardt 2019: 116–120). In addition, the vital parts of the text appear to be highlighted with different colors for accessible understanding.

Learning grammar from the written language of the game may be possible to some extent as many of the in-game conversations are written in correct grammar. However, this is not an absolute rule as some of the characters use colloquial language and some use grammatically incorrect language on purpose to suit the character's personality or theme.

The number of opportunities for the writing appear to vary drastically depending on if the game is played in the single player or multiplayer mode. The single player experience contains opportunities for writing short responses to certain questions asked by the characters, but the content does not significantly affect the gameplay as the characters do not appear to respond differently to the player's responses. Additionally, the player can write letters to other residents or write messages on the island's bulletin board, but again, the language does not hold much significance, since the player does not seem to regularly receive personalized responses based on what was written. On the other hand, the multiplayer mode offers the possibility of communicating in real time with other English users playing the game through typing messages during joint gameplay or sending messages through an in-game message app or via letters that can include presents. Through these means, the player could practice their writing skills whilst also potentially having exposure to written language by native English speakers.

The skills of speaking and listening, on the other hand, are exclusively found in the multiplayer mode as the single player does not include spoken language. As mentioned in the section on *Game mechanics and game features*, the player can talk with and listen to other players through the external smart phone app. By communicating with native English speakers or other foreign language learners in English, the player has the opportunity to practice both speaking and listening while playing the game.

5 DISCUSSION

The main aim of the study was to analyze the commercial video game *Animal Crossing: New Horizons*' potential as a platform for learning English as a foreign language in out-of-school contexts. To achieve this, the study focused on answering questions about which of the language learning affordances proposed by Reinhardt (2019) could be identified in the game, and how and where they could appear. In addition, the study analyzed the game's opportunities for learning the four different areas of language skills, reading, writing, listening, and speaking, as well as the aspect of vocabulary. The data for the study were collected through personal notes of the game and screenshots of the game screen. To analyze these data the study I analyzed them in a qualitative manner and compared their features with the aforementioned affordances. Additionally, the analysis process used Reinhardt's (2019: 100) steps for an analysis project on the topic as a guide.

To answer the first research question, the findings of the present study identified several gameplay and language features from the game that may support learning English as a foreign language. These included the mechanics and features surrounding personalization, customization, interactivity with in-game characters and other players online, and the in-game clock that matches real time, among others. In addition, the short-term and long-term goals, and achievements the game sets for the player to work toward create opportunities for such language learning related dynamics as motivation, agency, and active exposure to the target language. The language of the game is contextualized within the overarching narratives and themes surrounding living on and developing a deserted island into a developed community. Overall, the game features identified in the analysis tend to showcase a variety of EFL learning opportunities. The study found connections to all the affordances from the game's features, gameplay elements, goals, and language content, which would suggest that the game can offer potential for learning English as a foreign language in an extramural context.

The findings related to the second research question demonstrate both the existence of different areas of language in the game and which of them are generally more prevalent than the others. The skills of writing, reading, listening, and speaking, and the additional language area of vocabulary introduced as the framework in in the literacy review section are afforded by the

game's content. The skills of writing and reading are encountered in both the single player and multiplayer mode, but as the in-game characters do not speak aloud in English, the skills of listening and speaking only appear during multiplayer gameplay. The learning of English vocabulary, on the other hand, is afforded by the visual connections to given words in the surrounding context and the need to understand what is said to complete tasks. The content areas of the vocabulary appeared to often connect to topics such as names of items and clothing and daily life and other mundane topics, such as shopping or movies.

The results of the present study seem to generally align with the findings of other studies on the topic. The gradual progress and repetition of language content, such as instructions or interactions that occurs in *Animal Crossing: New Crossing* could be compared to Newcombe and Brick's (2017) findings on the affordances of the simulation game *Cities: Skylines*. In addition, the findings on vocabulary acquisition opportunities correlate with their study, as *Animal Crossing: New Horizons* also includes opportunities for contextualized language learning. Hourdequin's (2020) findings on *Animal Crossing: New Horizons* also included similarities from the vocabulary aspect, as he too found that the in-game text can afford learning English. Furthermore, the findings of the present study compare with his findings on how social communication and collaboration in the game can benefit language learning. In terms of studies on simulation games and their affordances, the study also appears to resemble Reinhardt's (2019: 93) observations on the simulation genre, as it can contain the elements of organizing, planning, and learning rules. On the other hand, there seem to be some similarities between *Animal Crossing: New Horizons* and games from the MMORPG genre despite their differences. Yaşar's (2018) literature review on research on MMORPGs highlighted themes such as using creativity and representation by avatars. These are also found in *Animal Crossing: New Horizons*. However, themes such as collaboration, whilst minimally present, appear to be more present in MMORPGs.

The implications of the present study for the field of studies and practitioners mostly relate to how certain features of video games are connected to learning English as a foreign language. The study furthers our knowledge of how video games representing the simulation genre can contribute to language learning and how the potentially beneficial features of video games may be showcased. On the other hand, the findings of this study can assist designers of language

learning related material and video games: they can help them to identify relevant features and content that may advance the development of functional language learning applications.

Although the present study was conducted from the perspective of extramural language learning, English teachers may also be able to profit from its findings. For example, they may use the findings as a basis for creating courses or tasks that utilize relevant features of the game to motivate learners. Furthermore, as Sylvén and Sundqvist's (2012) study suggested, learning vocabulary through informal gaming can potentially benefit those who play during their spare time, compared to those who do not. Should language teachers realize this additional potential of extramural gaming, they could also support their students' vocabulary acquisition in informal contexts.

As an overall evaluation of the study, I think that it succeeded in answering the questions it sought to answer relatively efficiently. The video game was examined thoroughly during the data collection period, and the data were analyzed with the help of categories that proved to be very useful. However, I also found that there are potential places of improvement in the study. For example, the study could have provided a more comprehensive view of the game as a platform for language learning if it had also included the perspectives of language learners' experiences of the game through methods such as interviews or questionnaires. Furthermore, the application of a finite list of language learning affordances, while creating a manageable framework, may have limited the results as the possibility of other features that could prove relevant for learning English through the game may exist. Another limitation of the study is that as a qualitative analysis project it does not offer an image of the game's language learning potential in reality but focuses instead on describing the ideal learning situation which may not correlate with the experiences of actual learners who play the game.

These places of potential improvement could be taken on board, alongside other new research possibilities. For example, further research into the language content could provide a broader view of the language learning and teaching potential of life-simulation games such as *Animal Crossing: New Horizons*. Furthermore, researching the application of the game in a school

context could present a more comprehensive view of the game and its genre in the more universal context of learning English as a foreign language.

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