

Rocksmith 2014 – 60 Days of Variety, Feedback and Missions

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Abstract: *Rocksmith 2014* is a game that the developers have mentioned as specifically geared towards learning the guitar. This paper covers the experience of playing the game over 60 days for one hour each day, an idea promoted by the developers of the game. The paper discusses how *Rocksmith 2014*'s 60-Day challenge, its variety of play options, well-constructed feedback, and mission system make it a game worth further discussion.

The Path to *Rocksmith 2014*

Rocksmith 2014 is a sequel to the original *Rocksmith* game meant to teach players how to play the guitar. In *Rocksmith 2014*, players use a real guitar, rather than the plastic peripherals meant to simulate the guitar used by early rhythm games like *Guitar Hero* (Harmonix Music Systems, 2005) and *Rock Band* (Harmonix Music Systems, 2007). Games like *Guitar Hero* were argued by researchers and music educators to hold some promise in being incorporated into music education (Gower & McDowall, 2012), but have also been lambasted by guitar players as oversimplifying and therefore not representing the real experience (Arsenault, 2008). To combat this latter argument, *Rocksmith 2014* and its predecessor *Rocksmith* allow you to plug in any electric guitar or bass into your console and use that as the instrument instead (Ubisoft San Francisco, 2013). By using a real guitar, it seems to be the hope of the developers that the game becomes a viable option for learning guitar. *Rocksmith 2014* prints on their cover and in their promotional literature that the game is the “Fastest way to learn guitar”, which they state is based on national studies (Ubisoft, 2013).

While the original *Rocksmith* had the option to plug in a guitar, mentioning on their website that the game would allow players to “develop real skills and real styles while playing...” (Ubisoft San Francisco, 2011), *Rocksmith 2014* was the first game that made a concerted effort to say that one would learn in the game (Gera, 2013). In Gera's interview with the Creative Director of *Rocksmith*, Paul Cross, Cross mentions that the original game had a “passionate and active community”, yet Gera writes that the development team for *Rocksmith*, “...was ‘disappointed’ in critical appraisals of the game that stated that *Rocksmith* failed to teach its users to learn guitar...” (2013) To improve on the original game, Gera reports that Cross and the development team made some changes, like removing an overall journey mode, and replacing it with a mission system that gives players three goals to achieve at any one point in time and introducing more constructivist tools like session mode (2013), which is meant to allow the player to play along with other instruments in an unobstructed environment. Based on arguments and claims made by *Rocksmith 2014*, I decided to try and test out the game to see if it could help a complete novice, like myself, learn how to play the guitar.

The 60-Day Challenge

In addition to being a guitar novice, I knew little about *Rocksmith 2014* before purchasing it. The game is available for many systems, and I chose the Xbox 360 version. Upon opening the game and examining its booklets and promotional leaflets, I was struck by its focus on trying to get you to learn and play guitar. In the materials as you open the game, there is a leaflet which is called the 60-Day Challenge, which includes a URL to a webpage providing more details on what they want you to do, which is essentially to play the game for an hour per day. One of the strengths of this type of challenge is that the game's literature does not say that you must play the game a certain way, in fact they state that they want you to merely play an hour a day, “However you want, whenever you want” (Ubisoft, n.d.). Using their system they claim to have you learn and experience a wide variety of guitar techniques, including barre chords and arpeggios, as well as scales, vibrato and a variety of harmonics. While this is small, I think it is great in that they are relying on merely spending the time playing the game rather than placing stress or onerous demands on focusing on a specific area of the game. This plan aligns well with research on expertise for gaining some proficiency in skills like typing and driving a car, where researchers argue that learners usually achieve a proficiency level with no more than 50 hours (Ericsson, 2006).

In order to then analyze their claim about the 60-day challenge, I decided to participate in the challenge myself. I had no knowledge of playing guitar, but have some previous experience playing both *Rock Band* and *Guitar Hero*. In July of 2014, I began playing the game from Monday to Friday typically, playing for an hour each day. I continued playing the challenge over the course of 13 weeks until October of 2014. In order to help with analyzing the game, I decided to follow a retrospective think aloud format, since I did not want to deter from the gameplay experience (Lacovides, 2009). Therefore, with each 1-hour session on each day that I would play, I would write down field notes

expressing thoughts that I had before playing the game or times that I would think about the game outside of the gameplay period. After playing for the hour, I would do a post-reflective exercise, in which I would write down my reactions, a summary of what I did, and any data that I could remember while I played. If I found any frustrations or things that I appreciated about the game, I would also write these down as part of my analysis. The analysis that I wrote before and after each hour of gameplay led to a 100+ page document full of notes, observations and reactions on the game.

Examining the part of the document that I wrote at the end of the 60 days, my reflections at the time stated that I felt I had improved my ability to play guitar, but certainly understood my guitar abilities were still quite limited. I had no understanding of sheet music, could not play a song in full on my own and struggled mightily with certain types of chords, like barre chords. Nonetheless, I did feel as though I had learned and become proficient at strumming certain chords and in moving my hand in all sorts of configurations along the neck of the guitar to be able to play at least part of a tune. I felt I could play the chorus of certain songs, like Def Leppard's "Pour Some Sugar On Me" and Weezer's "Say It Ain't so" to the point that I felt they were recognizable. There were also certain songs in the game that I noticed I could keep up with playing the chords they wanted me to play, and I had this confidence that with some practice and using *Rocksmith 2014* I could play a version of many songs, which was a large departure from where I started. So even though there are issues with the game, I learned some aspects of playing guitar with *Rocksmith 2014*, which is a feat. Focusing on the positive, it is important to use the observations made in my analysis document to provide support for elements of the game I found to be a strength. More specifically this paper will explain how the elements of variety, feedback, and suggestions make *Rocksmith 2014* a "well-played" game that is worth studying and discussing amongst the educational video game community.

Variety is the Chorus

One of the first things I noticed and wrote about on my first day with the game relates to *Rocksmith 2014*'s claim of doing a 60-day challenge by playing anything. After having completed the 60 days and learning some guitar, I think they were able to make this claim because of the variety of ways that *Rocksmith 2014* allows you to play the game. On the main menu for the game, there are seven different options for the player related to learning about the guitar, with five of them being different modes for the player to take on. The main mode, called "Learn a song", is the most similar to the early rhythmic games, in which players choose a song, and then begin to strum the guitar in ways that match the song itself. With over 50 songs in their playlist spanning over five decades and over 400 songs available as downloadable content, there is quite a number of songs that one could find. While I do not consider myself as someone who likes rock music, I could easily find a number of songs that I was familiar with and which gave me the desire to want to play them, which aligns with a professional game reviewer's comment that the 50 songs were "satisfyingly comprehensive" (Ogilvie, 2013).

This variety however, also extends to the many other options that are available from the start, which include a selection of videos under their "Lessons" area, a constructivist-like experience in "session mode", in which players have the opportunity to experiment and just strum the guitar in a free-flowing like format, and a place where they can experiment with pedal effects in their "Tone Designer" area. Aside from these areas, an area I spent a lot of time in was the "Guitarcade" area, which is a set of 11 mini-games meant to address different techniques used in playing guitar. For example, one mini-game, *String Skip Saloon*, looks to be inspired by *Tapper* (Marvin Glass & Associates, 1983) and helps players practice plucking different guitar strings. Some of the mini-games even cover the same guitar concept, like chords. Chords, defined simply, are notes produced by holding multiple strings on the guitar with one hand and strumming those strings with the other. In learning guitar, chords are a difficult topic to master for beginners (Miura, Hirota, Hama, & Yanagida, 2004) when performing a given melody with a guitar, several finger positions are possible, and when beginners are playing, often it is difficult to determine a fingering position. In this paper, the authors propose a method to determine finger positions that minimize the burden on performance and remove a burden on novice guitar players, and then describe "S2T," a system which outputs these results as tablature. The authors then confirm based on the results of a performance evaluation of S2T that it requires less burden than commercially available systems", "DOI": "10.1002/scj.10609", "ISSN": "0882-1666, 1520-684X", "language": "en", "author": [{"family": "Miura", "given": "Masanobu"}, {"family": "Hirota", "given": "Isao"}, {"family": "Hama", "given": "Nobuhiko"}, {"family": "Yanagida", "given": "Masazo"}], "issued": {"date-parts": [{"2004", 6, 15}]}, "accessed": {"date-parts": [{"2015", 2, 2}]}, "schema": "https://github.com/citation-style-language/schema/raw/master/csl-citation.json", which makes sense for why *Rocksmith 2014* provides multiple mini-games to address this topic. Below are screenshots of two of the games that are meant for practicing chords, *Return to Castle Chordead* and *Star Chords*. In *Return to Castle Chordead*, *Rocksmith 2014* uses the approach taken in *Typing of the Dead* (WOW Entertainment, 2000) in creating a rails-like story game in which players must play an appropriate chord in order to "shoot" various monsters and progress through a story to face a villain. This mini-game also resembles *Rock of the Dead* (Epicenter Studios, 2010) which used the original *Guitar Hero* plastic peripherals and had players play notes to advance through the game and story. Figure 1 shows a screenshot from the mini-game where the player is walking

through a castle level and must play the F5 chord to take down a monster before the monster reaches the player. In the figure, which is in first-person perspective, one notices the neck of the guitar in the lower center of the screen, which is metaphorically the gun used in many light-rail shooters. One also notices that the F5 chord is placed up top and to the right, with a diagram displaying how to play the chord. This diagram is a depiction of the strings and frets needed to strum the correct chord, this diagrammatic representation is used throughout *Rocksmith 2014* to discuss what frets and strings to hold to play a specific chord.



Figure 1: Screenshot from *Return to Castle Chordead* Mini-Game

While *Return to Castle Chordead* follows a “damsel in distress” narrative, the narrative in *Star Chords* has been simplified to shoot enemy spaceships by performing chords placed next to their characters. *Star Chords* shares the same overall mechanic of having to perform a chord represented on screen and as an enemy in order to progress through the game. However, the enemy which was represented as a monster that charged at you in *Return to Castle Chordead* is replaced by enemy spaceships that after some time, shoot at your spaceship in *Star Chords*. Figure 2 provides a screenshot of *Star Chords* that uses the same chord displayed in Figure 1, but now the diagrammatic representation of the chord that was in the upper right of Figure 1 is in the middle of the Heads up Display for the spaceship in Figure 2, with the F5 label on the enemy highlighted more prominently.

One part of the mechanic that both games do well is that they reward players who memorize what the F5 Chord is, which translates to the symbolic representation used in traditional guitar instruction. Both games promote the memorization of chords by using the same mechanic. When an enemy appears, it first appears just with the symbolic representation of the chord (like F5). If there is a seasoned player who understands how to play the F5 chord, then they would be able to have a head start in eliminating the enemy and achieve a higher score. If a certain amount of time has passed however, *Rocksmith 2014*'s diagrammatic representation starts to slowly pop up, first highlighting the red bar in the first column, meant to represent holding the E (heaviest) string on the first fret (the fret at the top of the neck of the guitar), followed by the yellow bar and then the blue bar in the third column, representing the A and D strings on the third fret. Both mini-games incentivize players to learn the symbolic representation once they understand the diagrammatic representation used in the game. In addition, both games do a good job of showing only a few chords in the beginning, and gradually adding more variety to the sequence of chords presented.

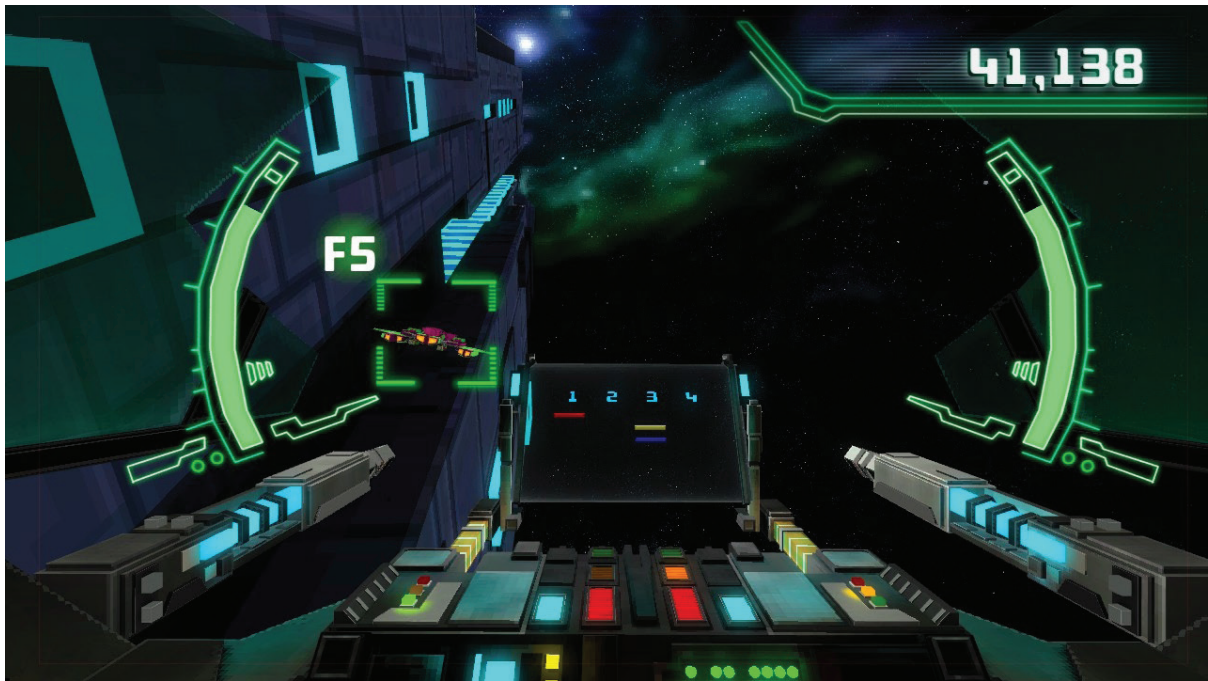


Figure 2: Screenshot from *Star Chords* Mini-Game

In looking at the two games, I not only prefer *Return to Castle Chordead* over *Star Chords* because it has a stronger narrative, but I also prefer it for the fact that you can practice a certain set of chords, as the game's short story on rails allows you to progress through the entire story in about 15 minutes, providing a checkpoint system that is completely missing in *Star Chords*, where you must always begin your spaceship journey from the beginning. Using the MDA model to analyze both games (Hunicke, LeBlanc, & Zubek, 2004) and applying learning goals to that framework, both games exhibit the same learning goal and mechanic of matching enemies to a chord. Nonetheless, the dynamic and aesthetics of each game differ, creating what feels like a different experience in both. This caused me to alternate between the games. Like for example on the 48th day, after playing *Star Chords* for a while and not passing my high score, I got tired of playing the game yet still wanted to practice chords, so I switched to playing *Return to Castle Chordead*. While this type of variety is not always feasible in games due to the amount of resources needed to produce both games, it is an important piece to understand the role that aesthetic pieces like story (Jimenez, 2014) and dynamics can have in creating experiences that feel fresh for gamers, yet still allow them to work towards the learning goals set out by the development team.

Amplified Feedback

Another area where *Rocksmith 2014* excels is in the feedback given to the users. While the game provides some summative feedback at the end of playing a song, the game also provides frequent feedback to users with each note that they try to play with their guitar. While this is common for rhythm games, one thing that is not as common is providing corrective feedback to the users. Rhythm games often display whether one was late in hitting a note, but *Rocksmith 2014* also provides arrows indicating corrective feedback to play the correct note. So for example, if the note the song asked for was on the 12th fret (column) and the player struck the 11th fret, *Rocksmith 2014* would have provided arrows to the right of the 11th column to indicate that one needed to go to the right next time. According to researchers, this is important to learners, as they suggest to "[p]rovide corrective feedback that helps the learners see the causes of their mistakes, and how to take corrective action." (Keller, 1987, p. 5) *Rocksmith 2014* does this by indicating which way novice players need to move their hands so that they can play the correct note.

While the immediate feedback given in the game helps the users immediately correct their actions, the game also aggregates that feedback and makes suggestions to players based on that data. *Rocksmith 2014* will try to match the complexity and number of notes to how well players have fared under similar circumstances. It does this to the point that even in new songs that you decide to play, *Rocksmith 2014* will not start you with the easiest version of the song, but one that matches to your overall mastery and accuracy level. I found this out as I started playing on my 26th day a song that I had not played up to that point. During that session, the game presented certain parts of the new song at a non-beginner level, which I was able to see based on bars placed at the top of the screen that indicate mastery. Each bar represents a small section of the song. Once a player does a good enough job playing all the notes necessary for that section of the song, *Rocksmith 2014* continues to challenge players by offering

“Master Mode”, which is a special mode where the notes for the song slowly fade out as you demonstrate proficiency in playing the song (See Figure 3), until the notes completely disappear.



Figure 3: Screenshot from playing a song where Master Mode has been achieved

The techniques implemented in Master Mode can be interpreted in multiple ways based on the literature. In one way, Master Mode can be interpreted as being the vital part of fading in scaffolding and fading techniques (Pea, 2004). Nonetheless, it can also be interpreted via the guidance hypothesis in the feedback literature (Schmidt, Young, Swinnen, & Shapiro, 1989). The guidance hypothesis discusses how it is important for learners to get immediate and substantial feedback when they are acquiring knowledge about the subject matter. In this case, when players new to *Rocksmith 2014* are first learning to play guitar, they should receive the substantial feedback that they do on every note. Moreover, the guidance hypothesis also suggests that having that type of feedback when learners are proficient may actually cause those learners to over rely on that feedback, blocking them from learning the material (Schmidt et al., 1989, p. 358). Researchers argue that once players are proficient, the feedback should be delayed. This is similar to what happens in Master Mode. Because the notes disappear, the player cannot rely on the immediacy of the earlier feedback, and must instead rely on their memory of the song. According to the guidance theory, *Rocksmith 2014* could have taken it a step further by delaying the feedback even further. This could have been achieved by not providing any information on the notes until the end of the song. This would have provided players with a seamless transition between the game and coming to do a real performance. Nonetheless, in my experience with mastering parts of the song, I noticed that I was already relying on listening to the sounds the guitar was making, rather than the screen as I played the sections of a song I felt comfortable with.

While *Rocksmith 2014* provides a wealth of immediate feedback, it also provides good instances of delayed feedback as well. The best instance of this is in the “Rocksmith Recommends” system, which is linked to each song. When a player wishes to learn a song or play a particular song, they tend to go through the list of songs and select one to play. Before the game launches the user into playing the selected song, the user is presented with various options. Part of those options include a “Rocksmith Recommends” system, a set of three suggested activities the game provides to the user based on their last play-through. The recommendation system not only lists the suggested activity, but once one highlights that activity, the game also tells you why it is providing you that suggestion. For instance, one suggestion may be to play a certain mini-game like practicing sliding, because of a prior poor performance in sliding. In this way, *Rocksmith 2014* is doing a good job of providing feedback meant to change the quality of performance, which has been termed as formative feedback (Tosti, 1978). If the desire is for people to improve on their performance, Tosti states that such feedback must be given just before the next performance (1978), which aligns exactly with where this feedback is given in *Rocksmith 2014*. Providing the feedback just before a user jumps into a song becomes the ideal position for those players to then concentrate on using that feedback to improve their performance, researchers claim this position to be “the teachable moment” (Dempsey, Driscoll, & Swindell, 1993). This is a similar path to one I took in one of my favorite songs. In my notes I noticed that in my 19th day of playing and practicing one song heavily, I finally paid attention to the recommendation system for that song and noticed that it wanted me to focus on practicing the chorus of a particular song, so I then spent the

majority of the time practicing the chorus on that day.

Rocksmith 2014 is my Mentor

While the feedback presented during each song works well, another aspect of the game that works well is the “Rocksmith Missions” system, which is a set of three missions that are presented on the title screen on the right. The missions presented are varied from working to achieve a new level in a Guitarcade game, to practicing jamming in the session mode, to editing tones in the tone designer or reaching a higher mastery level for a particular song. This mission system is something that was improved upon from the original *Rocksmith* which provided a single objective (Gera, 2013). By giving you three missions, *Rocksmith 2014* is providing you with a choice in achieving the goals they have laid out for you. You can completely ignore the missions, but the game has done a good job of presenting them on the title screen so that when you are deciding what you want to do, the missions provide an unobtrusive goal for you to work on. There were at least six different days out of the 60 on which I played the game where the mission system dictated part of my playtime for that day.

Providing choices has been shown in previous research to increase intrinsic motivation (Cordova & Lepper, 1996). The game has also done an excellent job in balancing the trade-off of wanting to give the user many different goals without overwhelming them, as having too much choice has also been argued to have detrimental effects on motivation (Iyengar & Lepper, 2000). *Rocksmith 2014* does an excellent job by always providing three options to the user in terms of missions. Once the player completes one mission, *Rocksmith 2014* will provide the user with a new mission to take the place of the old one. In addition, the game also rotates the missions that are given, so that while some may be the same or are recurring, the game provides you with a different set of missions each time you start the full game. This small detail was important for playing this for an extended period of time, as there were times in playing the game where I did not like any of the three missions given. Once I came back to play on another day, *Rocksmith 2014* provided me with a different set of missions, which then caused me to pay attention and to try to complete them. The mission system is a simple yet effective idea in that it does not force you to do what it asks, but tries to provide you with an easy set of gentle reminders on what it believes you should try to play, which empowers the learner to choose what they would like to work on.

Conclusion

Rocksmith 2014 has become one of the pre-eminent music games that has the simultaneous desire of helping people learn to play guitar. This paper has explored a number of techniques that *Rocksmith 2014* uses, namely the variety of content, the adaptive and learning-focused feedback, and the agency it gives its players to provide a viable alternative to taking guitar lessons in learning guitar. While the game is not without a handful of weaknesses and limitations, discussions of those limitations is beyond the scope of this paper. From a well-played standpoint, *Rocksmith 2014* is both well done, and well read (Davidson, 2008) since it serves as an excellent next step in creating a model example of a music game that has the potential of providing a meaningful and utilitarian experience for budding guitarists while also serving as an artifact for the learning game community.

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