Communication Quality Differences Between Legos and Minecraft

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Communication between pre-adolescent boys can be viewed as strange and unlike teen girls and "grown ups". According to Debra Tannen (1990), "All genders strive to be understood, however young men try to communicate to remain independent." This often leads to competition amongst the male gender. In order to test this theory, this study looks to observe if there are any differences between hands on activity communication and technology gameplay communication. The study observed 3 pre-adolescent boys trying to work together to make a house in Legos and then the boys were instructed to make a house on Minecraft. The levels of communication vary but there are constant and interesting ways pre-adolescent boys communicate to each other. The data from the study suggests that Minecraft allowed for more quality communication than Lego's.

INTRODUCTION

This study was done to measure and compare the quality in communication between pre-adolescent boys via interaction with Legos and a virtual building game Minecraft. To do this the researchers looked at three different criteria of measurement. The first being the time that was on task compared to off task, thus being quiet work time, as well as time communicating about the task considered on task. While time playing around and communicating about unrelated materials was off task. The second idea that was studied was the idea of the pre-adolescent children's ability to work together symmetrically, or whether they were in competition with each other. The last characteristic that was examined was leadership trait, if there was a leader that emerged in a group or if there was no leader at all. This research was done because there is a lack of research that is being done towards the ever-changing world and as communication mediums change so do the styles in which communication happens.

LITERATURE REVIEW

Gender Communication

Pre-adolescent boys communicate differently to each other than preadolescent girls do. Most of the time boys tend to talk about video games, sports, and most importantly females. During this time in most young boy's life they are trying to find out what kind of person they are and what crowd they mesh with. Acceptance is important in a boy's life in the pre-adolescent stage, which causes for some pretty foolish decisions sometimes. The most important thing with a pre teen boy is simply to be liked and accepted by his peers.

This causes for various types of communication between boys. There are many different clicks and groups that boys put each other in. This causes for many different conversations and norms simply because a lot of the time a boy will say what he thinks others in his group are thinking, rather than just simply saying how he feels. Because what he thinks won't be considered the cool thing to say. This can be harmful in many different occasions, because one is being forced to have a certain mentality that most of the times is not productive.

However, there are a few instances where one speaks their mind amongst their peers whether they seem cool or not. These tend to be the guys that are not afraid to be accepted because they have the brainpower to make someone opposing them look foolish. The less someone cares about what other people think or has to say the more of a leader they actually become, with that they tend to gain followers, which is odd. But, we tend not to see this at the pre-adolescent stage as much as we would a group of guys in high school or even the early years of college.

The difference in communication between boys and girls is also a big point simply because it's proven that guys talk more than girls in terms of gossip, as well as news in general. There are a lot of cases that show guys talk and open up more to their friends than they would with a member of the opposite sex.

According to Deborah Tannen in "You Just Don't Understand", "For males, conversation is the way you negotiate your status in the group and keep people from pushing you around; you use talk to preserve your independence. Females, on the other hand, use conversation to negotiate closeness and intimacy; talk is the essence of intimacy, so being best friends means sitting and talking. For boys, activities, doing things together, are central. Just sitting and talking is not an essential part of friendship. They're friends with the boys they do things with" (Tannen, 1990).

Tannen also states, "Women want men to do what we want. We want them to want to do what we want, because that's what we do. If a woman perceives that something she's doing is really hurting a man, she wants to stop doing it. If she perceives that he really wants her to do something, she wants to do it. She thinks that that's love and he should feel the same way about her. But men have a gut-level resistance to doing what they're told, to doing what someone expects them to do. It's the opposite response of what women have" (Tannen). She reminds readers that, of course, there are men who are very helpful toward their women. "But if a man is going to be touchy, it's more likely to go in that direction. Whereas if a woman is insecure, she's more likely to go in the other direction, [and] be superaccommodating" (Tannen). This shows how men mask their emotions, which causes for communication barriers down the long road, whether it's with a female in a intimate relationship or if it's two guys that are best friends. Whenever a male feels comfortable enough in a relationship to disclose and open up that's when the best communication will be displayed.

In closing males tend to communicate to gain and improve status. Not for intimacy or a closer relationship, not to say there aren't any males that communicate for intimacy because they are different types of people.

Virtual Communication

Video game communication research in the past has been primarily focused on online gaming. Where an individual will play a game online with other people through the Internet. Two researches, Steinkuehler and Williams, studied individuals playing an online fantasy video game.

According to their research, these online video game playing sessions are "...like the hangouts of old...Where everyone knows your (screen) name" (Lynn, 2006). People from the outside looking in see a person interacting with technology when really an individual interacts with a lot of people with the same interest as themselves. People share the same interest in the game that they're playing, yet still maintain differences between each other due the various number of backgrounds for every player. "To argue that their MMO game play is isolated and passive media consumption that takes the place of informal social engagement is to ignore the nature of what participants actually do behind the computer screen," (Lynn, 2006) the authors wrote.

After a two year study of 16 subjects playing an online fantasy game, Steinkuehler and Williams concluded that, "Virtual worlds appear to function best as bridging mechanisms, rather than as bonding ones, although they do not entirely preclude social ties of the latter type" (How does Online Gaming Affect Social Interactions, 2007). Even though people were making connections that are not relationships in the traditional manner, making online relationships with people cannot replace offline relationships.

Steinkuehler and Williams do recognize that everybody reacts differently to playing online video games. People who need a strong relationship in their life need one that's not through an online game. Otherwise it could replace relationships throughout the offline world. It's really a question of what kind of balance the person has in their life, Williams said. "For that reason, online spaces are not a onesize-fits-all phenomenon that can simply be labeled 'good' or 'bad'" (How does Online Gaming)

There have been other researchers from around the globe that have studied this topic as well. Siitonen, did his speech communication doctoral thesis on social interaction in online multiplayer. He observed and interviewed two different communities within the same online game called Anarchy Online.

Siitonen found results that differed from Steinkuehler and Williams study. Steinkuehler and Williams concluded that online video games could bridge relationships through online gaming, while Siitonen found that people could have long lasting relationships through online gaming. Even though he found that games could be played independently without the interaction of other gamers, online games encourage players to interact with each other in order to advance in the game. Gamers might then follow-up with other gamers and keep in touch through email, phone, etc. This would then lead to a formation of an online community.

Siitonen also found that certain demographics such as: age, appearance, and gender have little significance to forming communities in online gaming. "A 13-yearold French schoolgirl, a 27-year-old Swedish housewife, and a 44-year-old American engineer can all be members of the same community," (How does Online Gaming) claims Siitonen. Social structure is determined by how active a player is and how long a player has been a part of the community.

Online communities are also in constant turnover as well. A lot of them disappear while a hundred more takes their place. Some people still stay in touch with one another even if the community has disappeared. So playing the online game isn't required for the relationship to exist even if the relationship was started through the online video game.

Lego Communication

Lego's allow groups whether within a company, or just a social group to come together with their ideas and experiences in order to create something tangible. It helps teach communication skills, teamwork and leadership. Team Lego is a day of building, creating, and problem solving in a Lego based environment. The small blocks that come together have been proven to be an effective adult learning vehicle. Over the course of a day the group performs various Lego building activities that engage all members and allow them to flex their knowledge on the problems that arise and how they can conquer them (Milliken, 2009)

Play therapy involves the use of Legos to help children with disabilities learn and communicate creatively as well as developing creativity skills. Children with autism are more likely to recognize the Lego brand and it encourages learning. Since Legos are a systematic building process this will encourage those with autism because the basics of Legos play to those individuals with autism no matter how severe the autism may be. In order to build confidence and creativity you can reward your child for their color arrangement and actual structure, which will reinforce the behavior as accepted, which will continue to further their mindset. "The results have also proved to be lasting in the groups that the therapy has been tested on, with the individuals retaining the ability and importantly the enthusiasm for the toy, enjoying the creative side it offers. LEGO perhaps surprisingly, offers a simple way in which to develop your child's skills in communication, creativity and also their self-confidence, assisting their abilities in dealing with the new and the unexpected" (Pandian, 2012).

RESEARCH QUESTION

RQ: Which of the two mediums, Lego's and Minecraft provide better quality of communication between pre-adolescent boys?

After examining the literature review the evidence is clear that there has been research done with online gaming and how it connects individuals throughout the world. It is also clear that Legos are a great way to interact with people near you and show very vital communication skills in order to build a structure. Also the fact that pre-adolescent boys will communicate more efficiently and more in depth with each other while they are performing a task will help the research study. However what has not been tested and will be answered by the research question is the comparison of the two mediums of communication as well as how the communication between the boys is affected by the online video game Minecraft and tangible group work with Legos.

This question was discovered because of the work that has been done on preadolescent communication and how there communication differs when they are focused on an outside activity. Legos, and Minecraft were chosen as the two activities because one is well established and used as a tangible exercise to increase and develop communication (Legos). As well as Minecraft, because it is a rather new medium of communication and is growing in size because of technology and its multiplayer video game style.

METHODOLOGY

The way the researchers conducted their study was done by observing three pre-adolescent boys (Child B, Child D, and Child J). They observed and filmed the subject's interaction when they were playing Legos and Minecraft. By drafting a release form the researchers gained the permission of the parents so that they could film their children interacting through Legos and Minecraft.

Observation time was collected at one of the participant's homes to give the subjects a more natural environment to participate in the observation. Data was recorded in the living room while researchers were observing in the same room as the participants were building. Each subject was then interviewed separately after observation.

For Legos, the researchers gave the participants a Lego kit with instructions on how to build the house. The researchers told the participants that they needed to build a house but they didn't necessarily need to build the house according to the instructions. The observers gave the subjects 30 minutes to complete the house with 15, 10, and 5-minute warnings of when time was going to be up. The structure that the participants built was then filmed with an explanation from one of the participants on what they had built.

For Minecraft, each participant had their own tablet device and each subject would access the same server so their Minecraft avatars would be in the same world. The three participants were then told to build one house together. The researchers gave the subjects a 30-minute time limit with 15, 10, and 5-minute warnings of when time was going to be up. The observers then filmed on each tablet what each subject had built.

After the participants were done building their houses in Minecraft and Legos, each subject was interviewed separately. This was done so none of the subjects could influence each other's answers or opinions. Each subject was asked about what they thought about Legos, Minecraft, and the overall experience.

After the researchers collected the data, each researcher then watched the footage of each house being built and made individual notes. The video was also analyzed for how long the boys talked about the house they were building versus how long they were not talking about the house they were building. The researchers then put their notes together to reveal overall observations that they had made.

RESULTS/DISCUSSION

Time Spent On/Off Task

The study observed the communication between three pre-adolescent boys with a hands on activity Legos, as opposed to a more electronic approach Minecraft. In order to determine the interest of the activity by the participants, the amount of time spent on task was determined. During this observation the group measured a number of different things. The main researched topic was the amount of time that was spent on task as opposed to the time that was spent off task in both activities.

It was observed that the participant's conversation was slightly guarded in the beginning of the session. This could be a reflection of the participants being nervous about the recorded session and needed time to become more comfortable.

During the activity the researchers observed that in the Lego operation Child B took on a leadership role. There was less communication in Minecraft simply because each child was fairly familiar with the game because of the concentration and focus to build the better house. Child J and Child B were the two kids that were fighting for the upper hand in the Legos activity while Child D was sitting back, feeling comfortable in his own house.

In the Lego activity the 3 subjects were on task for 19 minutes out of the overall 30-minute activity. In the Minecraft activity the 3 subjects were on task for 24 out of the 30 minutes. It was observed that even though there wasn't a lot of talking going on between the three participants in the Minecraft activity, the

communication among them was focused on the task at hand. It is believed the reason for this was because the participants were as familiar with playing/working with Legos. There was more off-task behavior with the Legos because they didn't really want to put that much pressure on the activity simply because they didn't want to feel like they were unable to perform the task. On the contrary in Minecraft there was a lot of focused communication because all of the participants were familiar with this activity. So it was less trying to get ideas from each other and more competition going on. Each subject wanted to have the better house and be proven superior.

The Minecraft activity showed how competitive the subjects really were in a situation that they're familiar with. There was a difference in noise when working with Legos as opposed to Minecraft. There was 3 minutes of absolute silence when the subjects were performing the Minecraft activity. This shows that there was more concentration put into Minecraft than in Legos.

While being on and off task was an interesting finding, the nature of both on and off topics was equally of interest. The on task topics included: discussing instructions, Lego placement/advising, assigning who makes the next move, coming up with ideas/styles of the house, and frustration with progress of the house.

There were also a lot of off task topics such as Justin Bieber, talking about Minecraft while working on Legos, what kind of food they would be eating for dinner, singing random songs from the radio, making jokes about each other, the newest apple updates, and the Eiffel Tower.

Symmetrical/Asymmetrical Communication

One aspect of the observation of the boys' behavior was when they were "one-upping" or "one-downing" each other. One of Deborah Tannen's ideas from Genderlect Styles theory states that, "Boys and men feel it is crucial that they be respected by their peers, a form of involvement that focuses on asymmetrical status." (Griffin, 2003, p. 466) Tannen's theory that men are trying to compete with each other can be seen with pre-adolescent boys playing with Legos and Minecraft.

The main culprit for most of the "one-upping" was Child B. Most of the put downs was spoken by him due to the fact that he was most familiar with Legos/Minecraft and had a strong connection with Child D. Child J felt more of the odd man out and tried joking his way into participating and into the conversation. This led to Child J and Child B competing for the attention of the conversation.

Overall, there weren't as many put-downs in Legos than there were in Minecraft. Child D and Child J didn't like Legos that much which led them to not put each other down as much as in Minecraft. They also were forced to work together on one project with a finite number of pieces. This made them think into how they were going to build the house together instead of doing it independently. Child B was the most familiar with Legos, which made him take on a leadership role in the project. He said things like, "That's how high our house is going to be," or "I'm the roof maintenance guy!" This leadership role allowed him to delegate what was going to go into the house and what wasn't. This led to him giving out the put-downs he gave during the experiment. Even though each child was told to build a house in Minecraft, they wanted to build their own structures, which they would link into one structure at the end. The researchers said that as long as they constructed one structure it would be allowed. This gave the observers a different glimpse into how they communicated under different circumstances.

Even though Child J seemed the least comfortable with Minecraft, all three participants were more familiar with Minecraft than with Legos. When they started building their own structures, they started to put-down each other's houses more than with Legos. The boys were saying that they're house was the best or saying that the others houses looked like "a piece of poop." There was even a point were Child B and Child J were blowing each other's houses up.

Our study supports that Deborah Tannen's theory when she says, "Boys and men feel it is crucial that they be respected by their peers, a form of involvement that focuses on asymmetrical status." (Griffin, 2003) Child J looked somewhat desperate during the observation. There was a two and a half minute segment where Child J is trying to get the other boys attention with a joke he came up with.

Child J and Child B are seen as the ones trying to compete with each other for the group's attention. Child D is now seen as the exception to Deborah's theory. Since the observation was conducted at his house, he felt the most comfortable and didn't feel the need to compete with Child B and Child J for attention. He doesn't feel the need to verbally compete with the other boys because his house trumps whatever jokes or comments that they make.

Leadership

Another main point that the researchers noticed throughout the research was the Leadership roles that were demonstrated in the group. There was a clearcut leader through most of the time working with Legos, while building in Minecraft it was more of a free for all between the three. In all groups there is a leader whether that leader emerges through conflict and over time or his or her peers choose a leader.

With the first exercise having the three children work together to build a house, it was surprising to see how quickly a leader emerged and exactly what type of leader he emerged into. Not even a third of the way into the Lego activity Child B took the idea of teamwork and Building the Lego house into his own Lego house. Child B mostly used his own ideas and suggestions that he saw as helpful from the other participants. The style of leadership demonstrated was a prime example of an Autocratic leadership. Where an individual seeks out power and authority by controlling the direction and outcome of group work (Engleberg, 2013 p107). The individual that displayed this leadership style for the Lego house build was Child B. Child B would physically hold the structure near him and work on the house while the two other children for most of the time would be content in letting that happen just building structures that had no relevance to the task at hand. At the 20 minute mark to finish building the house Child B states in an effort to get Child D and Child J to give him some help and ideas, that "The sooner we get this done we can go play Minecraft". This is an effort by Child B to use persuasive power to get the other two children to contribute to an activity that none of them prefers to the electronic game

of Minecraft. Persuasive power relies on individual's communication skills to convince someone to do something or do something a certain way, in this case help child B complete the given task (Engleberg, p106). In conducting a non-formal interview with one of the children's parents we were able to understand a little better and get some inside information about Child B. We found out that Child B has been to Lego building camps in the past and he is the only child that has a great amount of experience with Legos. Knowing this information we can also say that Child B has Expert power over the other two children. Having expert power would be relying on their credentials and expertise; I would say that Child B has this without a doubt (Engleberg, p106). Also because the three children are good friends this would explain why Children D and I were comfortable with Child B taking the lead because he had previous experience with Legos. Another thing that the research group found very fascinating is that in Child B's interview at the end of the two exercises he stated, "I basically did all the work." His reasoning behind this is because the other two were building "random things" and not contributing to the actual goal.

The more favorable exercise in Minecraft took on a completely different leadership style. Almost immediately when they began building their houses in Minecraft they separate and build different houses promising at the end to connect them so it is all one structure. The research group believes that this shows personal power in all three of the boys. Now given that there are an unlimited number of blocks and open space the three boys insisted that they could one-up each other's structures. Personal power comes from a member's individual character, earned status and competencies (Engleberg, p105)

LIMITATIONS

One of the biggest limitations with the study is the limited range of preadolescent children to observe. The research group was only able to manage to observe one group of three pre-adolescent boys, where as having more groups would have produced more accurate results. Having different groups with different amounts of children would diversify the research and provide a clearer understanding of how children communicate to each other.

Another limitation was that the researchers had insufficient background information on the participants themselves. The researchers were not aware of how the participants knew each other or how well the participants knew each other. Having a pre-activity interview with the participants would have been helpful for this research and future research. Researchers can understand better how their participants interact with each other, and how well the participants know Legos or Minecraft so researchers can adjust their observations accordingly.

FUTURE RESEARCH

Having the participants not take as many liberties with the activity is also suggested for future research. In this study, the researchers were lenient in letting the participants do what they wanted with the Legos and Minecraft. Having the participants stay on task provides a better measure for how well the participants communicate with each other. It can also provide a good measuring tool for how other observations are conducted as well. As stated above, having a more diverse range of genders and ages is suggested for future research. This study only observed three pre-adolescent boys; how well do girls interact with each other? How well does a combination of girls and boys communicate to each other? How well do participants communicate if they don't know each other? It is encouraged for future researchers to be creative and explore different demographics for this kind of study.

CONCLUSION

In conclusion the data suggests that Minecraft allowed for more quality communication. This is backed up by the findings in the three main topics. First being on task where Minecraft was on task five minutes longer than Lego's. The next measurement is symmetrical, which in Minecraft they worked together as more of a cohesive unit. Lastly from a leadership standpoint Legos was more of an Autocracy where Child B took the reins, compared to Minecraft where all of the boys got creative and accomplished what each wanted in their own house. With the research that has now been done it can be copied and expanded on to compare communication. This can be used to compare pre-adolescents now to future preadolescents using the same mediums or more advanced ones.

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APPENDIX

Interview Questions:

- 1. Which was more fun for you, Legos or Minecraft? Why?
- 2. How did you and your friends decide to build a house in Legos/Minecraft?
- 3. What didn't you like about the Legos/Minecraft?
- 4. How do you think you helped make the house in Legos/Minecraft?
- 5. If you had to build the house by yourself, how would you do it differently?
- 6. Did you have fun today?