

The Impact of Online Discussion on Participation and Quality of Discussion

Brette M. Ott

Bowling Green State University

### Abstract

The purpose of this action research project is to improve my methods of facilitating reading discussion through an action research project. I will use both online and face-to-face discussion to measure its impact on the dependent variables, quality of discussion and participation. The purposive sample will be my twenty-seven fourth grade students at Clinton Elementary School. Students will participate in face-to-face discussion guided by comprehension questions. I use name cards to randomly call on students to respond and they have opportunities to respond to each other's comments. Students will also participate in online discussion where they will answer each question and have the opportunity to respond to each other's comments as well. Rubric will be used to assess quality of discussion and track participation throughout the project.

*Keywords:* online communication, blog, PBworks, quality discussion

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## The Impact of Online Discussion on Participation and Quality of Discussion

### **Chapter I: Introduction**

#### **Introduction to the Project**

Classroom discussion is sometimes difficult to facilitate effectively. Students may not volunteer to participate and when called on and many students will give weak responses that do not demonstrate clear connections to the supporting text for the topic. Quality discussion with full participation is key to comprehension. I will facilitate online discussion that allows all students to participate simultaneously or at different times and have time to construct thoughtful responses. Using online discussion will allow students to work at home and free up class time for more in depth skill work building on comprehension or vocabulary games. Then, I plan to track participation and assess quality of discussion using a rubric. If the results of this study show that online discussion increases participation and quality of discussion, I will change my method of classroom discussion. I have chosen this action research study to improve my practice as a fourth grade educator.

#### **Statement of the Problem**

Inspiring discussion can be a difficult task. More often than not, students need to be called on by name, because no one chooses to raise their hand to participate. Sometimes one or two students have an intense interest or opinion on the topic and dominate the conversation. Typically, few students offer their thoughts and even fewer students offer feedback to those thoughts. Working with younger students offers a few more challenges. Elementary level students have not developed the social skills to understand how to construct thoughtful responses and communicate them efficiently. Generally if the students participate, they either provide short one sentence or less response or they decide to share a long story about going to grandma's

house. Most elementary level students have limited background experience to draw on. Many students slide down in their seats and try to blend in with the background with hopes of not being called on.

Students should harness their ability to share their individual ideas and communicate them creatively instead of avoiding or dominating a conversation. The current society utilizes technology to communicate in social and professional circumstances. Current students need to learn how to maintain quality discussion in a technological medium in order to build necessary skills for future careers.

### **Rationale of the Study**

The weekly reading discussions in my class are more often quiet and lack luster than engaging and thought provoking. I would like to enhance class discussion by teaching students to share their ideas online. All students will participate with each other and share ideas using multiple forms of media. Quality discussion is important to learning, because students demonstrate their comprehension and reach higher levels of thinking by applying information found in the text to situations they've experienced and world events.

I plan to use the free online program PBworks to have students engage in online discussion about our weekly reading stories. I will post starter questions that require higher-level thinking. Students will be able to post a comment and comment on each other's comments to keep the discussion going. They will be able to use pictures to support their thinking and demonstrate use of prior knowledge and creativity. I will use a rubric to assess the quality of discussion taking place.

**Research Question**

Will online discussion have an impact on participation and quality of discussion for fourth graders at Clinton Elementary in Spring 2011?

**Hypothesis**

Online discussion will have a positive impact on participation and quality of discussion for fourth graders at Clinton Elementary in Spring 2011.

**Definition of Terms**

21<sup>st</sup> Century Skills – technological skills that are necessary to navigate, communicate and use the Internet productively

Blog – online communication system where multiple people post comments to one person's initial post

Multi media – multiple forms of media including but not limited to movies, sounds, pictures, and words

PBworks – online communication system that allow for people to communicate with each other and share web links, photos and videos

GoogleDocs – online words processing, presentation, and data input program that allows collaboration from multiple people

Facebook – social networking system that allows for people to communicate with each other and share web links, photos and videos

## **Chapter II: Review of Literature**

### **Introduction**

Online discussion is becoming more popular in the education community. It can be beneficial to students, educators, and parents by providing 24/7 communication. Appropriate implementation includes preparing teachers through professional development and understanding how to make use of all the features that are available in online communication programs. It is important for teachers and students to be cautious when using an online tool. Educators should define what quality discussion is to them and use regular assessments to reflect on how learning goals are being met.

### **Benefits of Online Discussion**

Online communication offers many benefits to students, educators, and parents. “Students use the school’s Facebook page to learn about dances, school plays, and sporting events; teachers create pages for individual classes to facilitate collaboration on assignments; and staff members and teachers use the social network to interact with each other” (Waters, 2011, p. 55). Teacher’s can post notes or podcasts of lessons that students have missed, and teachers and students can provide each other with regular feedback (Mullen, 2008).

Collaboration is a key benefit for students (Hall, 2007). Using open source programs such as GoogleDocs allows multiple students to work on the same presentation at the same time from their homes. Students are able to support and even tutor each other using online communication (Hall, 2007, 184). This allows for more instruction time in the classroom and prepares students for a type of group work that is becoming more popular for elementary and secondary level, and is common in college settings. Students will gain 21<sup>st</sup> century skills that are necessary to succeed in today’s careers. According to Mullen (2008), “The literate of the

twenty-first century must be able to download, upload, rip, burn, chat, save, blog, Skype, IM, and share” (p. 66). Waters (2011) claims that online discussion becomes an extension of the classroom by providing the students an opportunity to collaborate with their classmates at home (p. 57).

Students are no longer limited to pen and paper. They are able to construct multimedia representations of their ideas that more accurately reflect their creative thoughts. When students are given time outside of class and resources that the Internet offers, they are able to not only discuss their ideas that are based on other books, movies, games, and past experiences, but they can also show those ideas to the class by finding the materials and quoting books, sharing movie clips and images of their past experiences that relate to the content. Many blogging programs offer features that aid in multimedia (p. 467). Words are very powerful, but some ideas are best represented with alternative media.

An environmentally friendly benefit of online discussion is going paperless. Marino and Angotti explain how it can be difficult to transport, grade, and keep track of journaling notebooks (Marino & Angotti, 2011, 466). Blogging “allows teachers to respond to problems and concerns that students mention in their journals without having to collect the journals. It also permits students to retain access and teachers to give timely responses to students’ problems and concerns” (p. 467).

### **Implementation of Online Discussion**

The first step to appropriate implementation of online discussion is quality professional development. It is essential for educators to attend professional development sessions over time rather than one condensed session. Teachers should learn a few essential components of the communication program they choose to use in each session, try it out on their own, try it with



their students, and then reflect on their practices in the next professional development session.

The teachers should be comfortable enough with the technology to effectively convey appropriate usage to their students. Similar to how teachers need to meet with a professional development group periodically to ask questions, reflect of their practices and ensure that they are using the technology correctly.

Kerr (2011) explains that, teachers need to not only show students the different tools available on an online communication programs, but also monitor how the students use them to make sure that the students are getting the most out of their discussion (p. 28). Provide students with mini assignments that allow them to explore the different tools of the program creatively. Give them open-ended assignments so that they can comfortably get a feel for what features the tool has to offer. According to Mullen (2008), “to be successful in the world, students must learn to manipulate various forms of new media with a high level of comfort and skill” (p. 69). Students need to use problem-solving skills to relate what they already know about technology to new media in order to use it effectively.

Meaningful online learning is possible, when students can explain their learning goals, understand how to complete their assignments, and take control of their own learning process (Kerr, 2011, 29). An ideal way to accomplish the aforementioned goals while introducing a new communication tool is to use Sams and Bergmann’s flipped classroom model where students can watch tutorials on the communication tool and try applying that knowledge at home. They learn about the concept before class and then practice it in class with scaffolding (Brunswell & Horejsi, 2011, p. 10). Instead of spending class time modeling, that time can be better spent giving struggling students one-on-one attention. This model can go beyond preparing students to use different technology by preparing video examples, tutorials, and lectures in multimedia

presentations for outside class. It is very helpful for educators with large class sizes that find it difficult to reach each individual student in their set amount of time, and teachers who feel like they are constantly repeating themselves to students who ask repetitive questions. “Bergmann and Sam’s flipped classroom model has created a classroom structure that allows students to take responsibility for their learning both inside and outside the classroom. Teachers using the flipped model find that they serve as mentors rather than lecturers. They have time to provide individualized support to all of their students” (Brunswell & Horejsi, 2011, 10).

Although utilizing technology for classroom discussion has many benefits to students and educators, it can be dangerous as online communication has the potential to expose students to the world. “Many districts exclude students from social media as a security measure; some go as far as blocking all network users access to the likes of Facebook, YouTube and Twitter, but other educators think locking down networks and isolating students from social networks is tantamount to shutting them off from the real world” (Waters, 2011, 54). The dangers of online communication are apparent. Security expert Gary McGraw believes that these communication programs were created with user friendliness in mind rather than personal safety (Waters, 2011, 54). Multiple programs have increased security and options specifically designed for educational use. According to Mullen (2008), maintaining a blog takes time, planning, practice, and experimentation. Many different communication programs are available, but not all are suitable for every teacher and student (p. 69). Most online discussion programs have improved both security and user friendliness as their use in the classroom has increased.

It is crucial to prepare students by providing them with some Internet safety and etiquette courses before beginning a project. “Some considerations that should be kept in mind when choosing a blog service are the amount of control required by teachers, student privacy, and

cost” (Marino & Angotti, 2011, 467). It is not difficult to find free programs, but the key is to find a free program that is accessible by your school district and offer appropriate features and security options. Educators should think about student access and connection speed in the school and at home (Kerr, 2011, 30). According the Waters (2011) an ideal program is one that allows students to log on using a username and password, possibly an email address if the students are older. It should not require any personal information about the students such as age, gender or address. Teachers should be able to post and grade assignments and ask questions or give feedback to their students. Students should be able to participate in online discussion between one or multiple students while a teacher monitors and can delete what it posted (p. 57). Mullen believes, it is a good idea to have students make up a user name to keep their identity confidential (p. 69).

Teachers need to not only prepare students to use the Internet safely, but also appropriately. Educators see the development of their students’ social skills over time. They are well aware that the students sometimes need some scaffolding in this area. It can be overwhelming for a student to enter an online world where people pretend to be someone else and just about anything can be said. Students need to realize that they will be not only using this technology for school but also most likely for their future careers. The computer skills required for online discussion are necessary for students to master, because “NCLB states that every student should be technologically literate by the eighth grade” (Witte, 2007, 92). It is essential that students learn and understand Internet etiquette. “Many of them have no idea how their comments can be misconstrued by their peers” (Waters, 2011, 57). It is also important for teachers to use the appropriate security settings in order to protect their students from exterior

comments from people they do not know. Schools will only be able to utilize technology for online discussion in a safe and secure environment (Waters, 2011, 57).

### **Quality Online Discussion**

Educators should define what quality discussion is to them, create a rubric to assess whether quality discussion is taking place and reflect on how it should be improved. The criteria used to assess online discussion needs to be shared and discussed with the students, so that they know what to expect (Duebel, 2007). Using Bloom's Taxonomy is a necessary tool. Students need to engage in higher order thinking that challenges them to apply, synthesize and evaluate. Students may work in groups to discuss, debate, or create collaboratively. This will help them to develop social skills necessary for future careers. Marino and Angotti (2011) claim, "Journal assignments provide opportunities for students to clarify and expand on their thinking and allow teachers to assess their understanding by asking thoughtful, probing questions" (p. 468). Teachers can assign questions for a journal entry to ensure a higher level of thinking or they can have students guide their own discussion. Students can also evaluate their own learning. Teachers can help students evaluate their learning by requiring them to explain what they have learned at the end of the week and what they don't quite understand. Both teachers and students will identify strengths and weaknesses by reflecting on the week's activities (Marino & Angotti, 2011, 468).

Appropriate assessment is essential in evaluating student learning. Kerr (2011) states, "In order to effectively assess student progress, students should identify clear, attainable, recognizable goals at the start of the course and monitor, revise, and create new goals throughout the duration of the course" (p. 29). Teachers can provide students with goal sheets that will help students track their progress. Students can write down their daily goal, an example, and evaluate

how comfortable they feel about it before and after the online lesson or online discussion session. This can help teacher to pre-assess so that they know who has dealt with the concept before or who forgot about it from previous years. Educators could have students complete this online before and after the lesson using a survey tool and then use that printable and displayable data to reflect on their lessons and individual student understanding.

Students can also engage in self-reflection using digital journals. Teachers and students will both have access to the journals at all times and teachers will be able to comment on the journals. Students should not only evaluate their own work, but also evaluate the work of their peers and give feedback (Deubel, 2007). “When viewed as a whole, digital journals from an entire class can indicate which lessons need to be enhanced with additional content to increase student understanding and when students are ready to move on to a new concept” (Marino & Angotti, 2011, 468).

## **Conclusion**

Online communication is beneficial because teachers, students, and parents can access it anywhere, anytime, and students are able to express their ideas creatively. Appropriate implementation is necessary for teachers and students to get the most out of the program they are using. Teachers are responsible for making students aware of the dangers that online discussion presents, and how to use Internet etiquette. Quality discussion should be clarified by the educator and assessed both by the teacher and the students.

### **Chapter III: Methods and Procedures**

#### **Intervention**

My fourth grade students participated in weekly Reading discussion online. I used PBworks to facilitate online discussion and created a page for the classroom and then individual accounts for the students. Each student received his or her own username and password. PBworks is an excellent tool for the elementary level, because students do not need an email account to join. Each week I posted discussion questions for students to respond to. The questions referred to our weekly story. The questions I selected to use came from a combination of the textbook, tests, and worksheets. These are the same questions I would have used during in class discussion as we read through the story together. Students commented on the discussion questions. They also had the opportunity to read other students comments and replied to them by providing feedback or discussing an original idea. I kept a weekly record of participation for each student, and I evaluated the quality of discussion using a rubric.

Students were able to post comments from their home computers. They also had two half hour sessions during the week that they used to post their comments during the school day. This allowed students who did not have Internet access at home to have ample time to participate in online discussion. The security settings of our class page did not allow for anyone outside our class to view our page. This feature of PBworks and most similar programs is ideal for educational settings. My fourth grade students have learned about Internet safety, but they haven't had experience posting information online. They were able to post information while practicing using their Internet safety skills (not giving out personal information etc.) in a protected environment.

#### **Design**

The design incorporated into this project is an action research design. Action research design was chosen in order to improve my practice and student performance. The intervention is intended to increase participation and enhance the quality of reading discussion. The effectiveness of the intervention will be measured by the flow chart and content analysis. If improvement is shown in student performance, the intervention will be incorporated into weekly lessons. If improvement is not shown, other methods will be tested. This action research design should result in effective communication between students and the educator as well as a reflection of pedagogy. It cannot be generalized to other populations, because it is specific to the fourth grade students at Clinton Elementary School.

### **Sample**

Tiffin City School District has been designated effective. During the 2009-2010 school year adequate yearly progress was met, however the value added measure was not met. Eighty-nine percent of fourth graders passed the Reading Ohio Achievement Assessment and eighty-three percent of fourth graders passed the Mathematics Ohio Achievement Assessment. Approximately two thousand, seven hundred seventy-two students are enrolled. 1.4% of students are Black and non-Hispanic, 0.5% are Asian or Pacific Islander, 2.2% are Hispanic, 3.5% are Multi-Racial, 92.3% are White and non-Hispanic and 0.4% speak limited English. 46.3% of students enrolled are considered economically disadvantaged and 18.1% of all students have disabilities.

The purposive sample used for this research was chosen because I work with and have access to them on a daily basis. There are twenty-seven students in the fourth grade class at Clinton Elementary School. All students are White, non-Hispanic and speak fluent English. Six

students are on Individualized Education Plans and two students are of a low socio-economic status.

### **Instruments**

I will use weekly discussion questions and a quality of discussion rubric. Each weeks' discussion questions will be structured the same. They will be used to guide discussion over the weekly story. The quality of discussion rubric will be used to assess student responses to the weekly discussion questions.

**Weekly Discussion Questions** The Weekly Discussion Questions will be used to guide discussion on the weekly Reading story. The questions will be specific to the weekly story, but will be similar by skill. The first question will ask about author's purpose. The second question will require students to draw conclusions. The third question will be about making generalizations or supporting a generalization. Students will compare and contrast information in the fourth question. The fifth question will require students to pick out a main idea or find details to support a main idea. Students will determine fact and opinion in the sixth question. The seventh question will be about cause and effect relationships. The eighth question will address sequence. The ninth question will address sequence.

During face-to-face classroom discussion I will present each question to small groups of students and use name cards to randomly choose one student to respond verbally. The other group members will have an opportunity to reply to the student's comment. Online, all students will type a response to each of the nine questions and will be able to reply to each other's comments. I can also keep track of participation during discussion.

**Quality of Discussion Rubric** The Quality of Discussion Rubric will assess student responses to the discussion questions. Three categories will be taken into account: completeness,



appropriateness and connection to the text. I will assign a zero, one, two, or three in each category for each response to a question. This instrument is reliable because I will use the same criteria to assess all responses. It is valid in evaluating whether a response is presented as a complete thought, directly answers the question, and demonstrates a clear connection to the text.

### **Procedures**

Multiple steps have been taken to make this study successful. Discussion questions have been established for each story in the Reading Street fourth grade basal. I have created a PBworks webpage to host online discussion and password-protected accounts for each student. The PBworks pages are restricted to private use to prevent anyone without an account that I approve to view or comment on my students' work.

Each weeks' discussion questions required the students to use the following skills author's purpose, drawing conclusions, making generalizations, comparing and contrasting, picking out main ideas and details, determining between fact and opinion, finding cause and effect relationships, sequencing and analyzing setting. The questions are slightly different in order to apply to each individual story. These questions have been used to guide the discussion online and face-to-face.

Reading class was held each weekday from about 10:40 a.m. to 11:50 a.m. Each Monday I discussed a comprehension skill and a vocabulary skill with the class. This class time was also used to build background knowledge. On Tuesdays, I called on students randomly using name cards to read the first half of the story aloud. We used the same method to read the rest of the story on Wednesdays. Each Thursday I facilitated discussion using the weekly discussion questions. The students were divided into three groups with nine students in each group. I

alternated holding the weekly discussion online and face-to-face. This process began on Thursday, March 17, 2011.

During face-to-face discussion, I worked with one group while a teacher's aide and special needs specialist worked with the other two groups. I asked each question and randomly called on one student to respond to the question using name cards. The students had an opportunity to respond to each other's comments. I recorded the discussion in order to assess the comments using the quality of discussion rubric at a later time.

During online discussion, the students commented on each of the discussion questions. They were also be able to reply to each other's posts. I had the students answer the questions using laptops in the classroom. In order to keep both methods of discussion similar, I used name cards to randomly choose one student's response per question. I evaluated the response using the quality of discussion rubric. I evaluated each of the three groups once face-to-face and once online.

I kept track of the results on a password-protected spreadsheet where I was able to compare the assessments of face-to-face and online discussion. I also used a spreadsheet to keep track of participation during face-to-face and online discussion.

The quantitative results of the Quality of Discussion rubric measured the quality of the responses as a variable from a scale of 0 – 9. A higher score represented a higher quality of discussion. The participation variable was measured by categorical results. Students who did not participate will receive a one and students who participated will receive a two. The purposive sample cannot be generalized to a larger population and therefore, inferential statistics did not apply.

**Limitations**

The results generated from this research cannot be generalized to the population, because about thirty students, in a specific setting, have tested them. As a researcher collecting data for my own intervention, I am subject to data collector bias. If the results of this study show that online discussion has a positive impact compared to in class discussion I will change my method of discussion. I present each lesson that is up for discussion differently due to the nature of the topic. This subjects the study to data collector characteristics, because my overall manner will change the way students respond to me.

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## Appendices

**Quality of Discussion Rubric**

<b>Response Criteria</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
<b>Complete</b>	Response was presented as a clear complete thought	Response was either clear using few words or a complete thought with a need for clarification	Response included few words with a need for clarification	Did not attempt
<b>Appropriate</b>	Response directly answered the question being asked in a thoughtful manner	Response directly answered the question being asked without much evidence of thought	Response did not directly answer the question	Did not attempt
<b>Connection</b>	Response demonstrated a clear connection to the text	Response demonstrated a loose connection to the text	Response did not demonstrate a connection to the text	Did not attempt