Using Technology to Differentiate Instruction

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Introduction and Rationale

As educators we face many challenges both inside and outside the classroom. One of our biggest challenges can be identifying the needs of our students while preparing them for the world they will encounter as adults. Educators find that students bring a wide range of cultures, languages, beliefs, and experiences to the classroom. Therefore, the task of identifying the academic needs of our students and then applying appropriate instruction can seem to be a monumental task. Preparing students for the future means teachers must incorporate technology tools that will prepare students for a society that is becoming increasingly technology dependent. Looking at the impact technology is having on our world today, we know that the rapid changes occurring in this field will most definitely be an intricate part of our students' futures. Therefore, if we are truly preparing students for the future, we understand the need to incorporate technology in today's classroom. Of course, we cannot see into the future, so we can only prepare students with the technology that is currently available. Since we are required to prepare students for the future while keeping in mind the individuality of our students, perhaps technology could aid teachers in meeting the needs of students more effectively. Instead of looking at differentiation and technology as two separate tasks that teachers must incorporate into effective practices, could technology actually be used to help teachers differentiate instruction? By reviewing the research, this paper will identify core methods of incorporating technology in the classroom to differentiate instruction which will develop students' reading skills, while preparing them to be critical consumers of technology tools.

The purpose of this research synthesis was to look at how educators are incorporating technology in the classroom and the impact the use of that technology is having on differentiated instruction. I wonder if using technology can help fill the gap that is created by socioeconomic

status and language acquisition. Additionally, I wonder if technology can be a tool that simplifies differentiation or if it distracts students from content area instruction. As a teacher in a Title I district, my students have varying levels of competence in reading skills and the use of technology tools. Although I believe I have an obligation to use technology in the classroom, I fear that without proper implementation I am only widening the gap between my students.

Definition of Terms

Differentiation, sometimes referred to as individual instruction, is the ability to provide appropriate instruction for students so they can be successful when attempting to master content based objectives. Since students enter a classroom with a variety of skills and needs, differentiation is the process of scaffolding and applying appropriate supports which allow all students to be successful in gaining an understanding of the objective being taught. Tomlinson (2012) states, "the primary goal of differentiation, however, is to help teachers develop and use multiple pathways for students to learn whatever they teach, including content standards." Differentiation would be the opposite of a one-size fits all model of instruction and would instead focus on individual weaknesses and strengths in developing instructional routines and lessons. Therefore, for the purpose of this synthesis, differentiation is a teacher's ability to develop instruction so students may reach an academic goal through their individual learning preference which would result in a successful learning experience.

Technology can be a little more difficult to define. Terms like digital literacy, media literacy, new literacy, and online literacy have emerged to identify the skills needed to effectively interpret the ever increasing amount of electronic media that technology has made available. These terms are sometimes used to identify the use of technology, but seem more apt to describe the ability to maneuver through digital information or a user's ability to apply

technology effectively to meet academic goals. These terms focus on a student's ability to interpret and evaluate the information that is accessed through the use of technology. For the purpose of this synthesis, technology will refer to tools, such as e-readers, as well as software, programs, or Web based tools and products that require access through a computer or other electronic devices. Sites like Facebook, Twitter, or Instagram would be examples of social network sites that are Web based products. Students would need an electronic device such as a smartphone, tablet, or computer to access the sites. The goal of this synthesis was not to focus on how effectively students navigated or interpreted the information on such sites, but how teachers can use technology to find additional pathways for students to reach the end goal.

Procedure

Articles for this synthesis were located through the Texas Woman's University Library website. Using the Education subject guide, searches were completed using the following databases: Academic Search Complete, Education Source, ERIC (Ebsco), Professional Development Collection, PsycInfo, Researcher Starters-Education, and Teacher Reference Center. For the initial Boolean search the following terms were used: differentiated instruction, technology, and literacy. The search parameters were widened to include related terms. This initial search produced 33 results. The search was narrowed by selecting only journal articles that had been published in the last 10 years which resulted in 9 articles. For an initial search the results were lower than expected. By reviewing the abstracts for all 9 articles, one article was identified as a viable primary source. Since the initial search yielded so few results, additional terms were considered that could be used to find additional articles.

After revising the search terms, several searches were done using different combinations of the following terms: individualized instruction, personalized instruction, interventions,

adaptive technology, media literacy, digital literacy, e-learning, technology tools, e-books, literacy learning, social networking, reading instruction, reading literacy, and reading comprehension. These searches were still limited to articles that had been published within the last 10 years. It was important that the technology being implemented to differentiate instruction be as current as possible since technology changes so rapidly. The most recent studies would reflect the use of current technology tools instead of outdated or obsolete devices. After each search, article abstracts were reviewed to identify relevant, primary articles. Research articles that were primary sources, implemented some form of technology, and measured student growth were included for review. Although the age range of the participants of the research articles ranged from elementary students to undergraduate students, age of participants was not used as a determining factor on whether to consider a study. As long as a study met the three previous criteria, it was included. Articles that focused on special education assistive technology were not considered for this synthesis. Even though the use of technology in special education demonstrates differentiation, the scope of these articles appeared to be very specific which did not translate easily into general education applications. Therefore, this synthesis focused on articles that identified technology that was implemented in a general education setting and allowed students additional pathways for mastering an objective. In all, 10 articles were chosen for this synthesis. Looking through the references of the articles found, additional articles were reviewed to help build background knowledge.

Findings

While analyzing the articles, several themes began to emerge. The most significant theme was the role of the teacher in implementing technology to differentiate instruction. It

appears that technology is having a significant effect on pedagogy within the classroom. The teacher is not only an intricate part of planning instruction, but also a partner in learning. An additional theme found was time spent on task and students' perceptions regarding pacing of instruction when technology was implemented as part of the lesson. The research also showed a connection between positive skills mastery supported through the development of critical thinking. The final theme was increased motivation and value of content area material when technology was used as an instructional tool to teach content based objectives. Although there were many encouraging findings, there were also a variety of obstacles that must be addressed when incorporating technology as part of instruction.

Teacher Role

Teachers appear to play a crucial role in implementing technology that differentiates instruction. Segal-Drori, Korat, and Klein (2010) compared the use of e-readers and traditional print with and without teacher instruction among kindergarten students. The study consisted of four groups: students reading e-books independently, students reading e-books with teacher instruction, students reading print books with teacher instruction, and students receiving traditional classroom instruction. Students were measured on phonological awareness, word reading, and concepts about print. Based off the pre- and post- measure results, the conclusion was made that teacher instruction was an important factor in developing emergent reading skills. The researchers concluded that the highlighting feature of electronic books supported the development of concepts about print. However, reading the print book helped develop phonological awareness. This finding demonstrates the importance of the teacher in identifying the strengths and weaknesses of students and then selecting an appropriate method of instruction or tools. Before incorporating technology to aid students, the teacher must identify the objective

needed by the student and then implement the appropriate measure. This points to the importance of teachers being active participants in identifying technology to meet the needs of students.

Clearly, teachers must be aware of the technology available in order to design instruction that supports student learning and more importantly learning differences. However, Whiten (2009) went even further by demonstrating teacher awareness of multimodalities created the foundation for choosing the appropriate technology. Teachers need to be aware of how students learn and then understand what technology supports each modality. Whiten's (2009) case study of Graduate level pre-service teachers found that providing explicit instruction in modalities and technology supports allowed the participants to purposefully incorporate a variety of modalities. Another interesting finding was that even with explicit instruction the projects tended to be dominant in one modality. Even though explicit instruction in a variety of modalities allows students to stretch into developing additional pathways for learning, students will tend to remain dominate in a modality. This again supports the importance of the teacher in identifying the strengths of a student and then selecting the appropriate method of instruction. It also implies that teachers need to be active consumers of technology in order to appropriately apply technology that is beneficial to students.

Another interesting phenomena of using technology to meet student needs is that the teacher role is altered from the traditional teacher-student paradigm. Since technology changes so rapidly, teachers often find themselves as facilitators rather than disseminators of information (Davies, Dean, & Ball, 2013; Leland, Ociepka, & Kuonen, 2012). Teachers will often find themselves working along with students to better understand the technology. In some cases, students may be more aware of the technology than the teacher (Mills & Chandra, 2011).

However, technology like social networking sites allows students to provide feedback to each other instead of feedback being given exclusively by the teacher (Mills & Levido, 2011). When used appropriately technology can help develop a learning community within the classroom even though the classroom may be virtual in nature. It is important for teachers to be open-minded about technology and understand that technology is a tool that can help students be successful in learning. Not only do teachers need to be open to finding technology, they must be active participants in identifying or even designing technology (Huang, Liang, Su, & Chen, 2012; Rosen & Beck-Hill, 2012; Whitin, 2009; Mills & Levido, 2011). Teachers should understand that technology is just another tool available to them. It is not unlike selecting an appropriate text for a lesson. Once teachers realize they do not need to be masters of the technology they use in the classroom, they are more likely to implement technology that will help students move toward being independent learners.

Time on Task and Pacing

Most teachers will understand that the more time students spend on a task, the more quickly they will master the objective. Educators also understand that each student reaches mastery at their own pace. For example, some students may master a new vocabulary word after hearing it four times, while another student may need to hear the word 12 times before the student can use the word correctly in daily language. Certain technology tools seem to naturally fit an individual instruction model. Although teacher interaction and support is necessary, technology can aid teachers in providing each student the appropriate amount of time to reach mastery of an objective.

Zheng, Warschauer, & Farkas (2013) studied the use of a one-to-one laptop program on writing skills of at-risk students in California and Colorado. The study looked at 4th and 5th grade

students' pre- and post- standardized test scores which reflected greater gains for Hispanic and at-risk students enrolled in the one-to-one laptop program. Although the authors of the study admit that measuring the success of such a program is difficult since appropriate measures have not yet been designed, the qualitative results from the student surveys provided an interesting finding. Overall, at-risk and Hispanic students reported using their laptops more than students of other demographics. Additionally, at-risk and Hispanic students reported a greater sense of responsibility for their work as well as decreased pressure to keep up with their classmates when using the laptop. Mills & Levido (2011) reported similar observations in a case study of iPed pedagogy. While observing the implementation of a pedagogy that fosters technology as a core element of instruction, students were found to spend more time on tasks with screen-based activities than on paper and pencil tasks.

Technology removes some of the stress students may feel when trying to keep up with their classmates (Davies, 2013). The fact that students feel more comfortable working at their own pace when using technology makes it an attractive option to use in the classroom. The use of technology can decrease some of the classroom demands on the teacher as well. Specific technology tools allow students to receive feedback from multiple sources (Leland, Ociepka, Kuonen, 2012). Technology tools such as blogs seem to naturally build processing time for students which allows students to work at their own pace (Mills & Chandra, 2011). With less stress students are willing to spend more time on task. By providing pacing and more time on task, technology seems to easily assist teachers in differentiate instruction.

Critical Thinking and Skill Mastery

Another aspect of using technology to differentiate instruction is the effect of critical thinking which aids students in skill mastery. Davies, Dean, and Ball (2013)

demonstrated that not all types of technology support differentiated instruction because they do not allow students to think critically. In this study they looked at a flipped undergraduate computer class. The effectiveness of instruction in a traditional classroom setting, a simulation classroom model, and a flipped classroom model were compared to determine the impact on student growth. The simulation model required students to follow the simulation exactly to complete tasks and did not allow for other avenues of meeting the same end goal. The results from the study showed that students in the simulation model reported more frustration with the material and a lower level of skill mastery than in the other two models. Limiting the pathways to meeting the end goal required students to regurgitate information rather than solve a problem. This may explain the lower skill mastery of the simulation group. This highlights the importance of selecting technology that encourages problem solving and stimulates critical thinking. Technology that provides a model may be useful for demonstration purposes, but is too limited to differentiate instruction.

An additional study by Leland, Ociepka, and Kuonen (2012) performed a classroom inquiry of an 8th grade class as they explored user responsibility when working with social networking sites. As students were taught to critically evaluate the material in a social networking site, student engagement increased even though technology was only a partial component of the lesson. When lessons or interventions allow a student to apply critical thinking skills, student engagement is increased (Mills & Chandra, 2011; Rosen & Beck-Hill, 2012; Gunter, 2012; Mills & Levido, 2011). Not all technology allows for application of critical thinking skills. In order to differentiate instruction with technology, a major component of the technology should be its ability to allow students to think critically during the task assigned.

Educators need to keep in mind what task is being assigned and evaluate how technology can aid in developing critical thinking skills.

Motivation and Content Value

Students encounter technology on a daily basis. The fact students are already using technology outside the classroom provides an opportunity for teachers to bring students' daily lives into the classroom as a tool for instruction. Students are often motivated to participate in class instruction when the technology inside the classroom mirrors the technology they are using in the real world (Davies, et al., 2013; Leland, et al. 2012; Gunter, 2012, Mills & Leivido, 2011; Zheng, et.al. 2013). When students understand the real world application of technology it increases the student's value of the content being taught (Mills & Chandra, 2011; Leland, Ociepka & Kounen, 2012; Gunter, 2012). When teachers reflect on any technology students use daily, they may find a tool for differentiating instruction that fits naturally in the classroom. As with other instructional tools, the connection between classroom instruction and real world application holds the key to student motivation. The use of technology as a tool to differentiate is appealing since it is already a part of most students' daily lives. In fact, incorporating technology in an instructional setting provides a method of equalizing demographics differences by allowing all students equal access to the same technology.

Mills & Chandra (2011) performed a case study that looked at the use of microblogging as a method of supporting literacy learning. Microblogging allows students to communicate through short texts using tools like websites or mobile devices. It was found that the use of microblogging promoted self-initiation of learning tasks and showed students often used the platform even when it was not required for an assignment. Another finding was the environment that was created using the platform. Students reported feeling the microblogging platform was

lower-risk than in a traditional classroom setting. Using technology to lower students' perceptions of risk allowed them to participate more fully in instruction and motivated them to work in the platform without being assigned. This illustrates students valued the content of the objective not the assignment required to be completed. Once students make a connection between what they are learning in the classroom and what they are using outside the classroom motivation increases because they understand how their learning impacts their daily lives. Technology makes this connection much easier for students to make since they already value the use of technology.

Limitations

When using technology in the classroom, there are some obstacles that need to be considered. The cost of technology can be a difficult expense for school districts to meet. Davies, Dean, & Ball (2013) found that although a simulation program was less expensive, it did not effectively replace the instruction received from the classroom teacher. With this in mind, technology should not replace the teacher but assist the teacher. The fact that technology is constantly being developed and evolving increases the expense. Many schools do not have budgets which would allow them to keep up with the rapidly changing technology market. Contributing to the expense of technology in the classroom is the cost of maintenance for technology tools that are purchased (Huang, Liang, Su & Chen, 2012). Normal wear and tear on equipment is costly, but is greater when multiple students share the equipment on a daily basis.

Student safety becomes another major concern when incorporating technology in the classroom. Mills & Chandra (2011) and Leland, Ociepka, & Kuonen (2012) point out the dangers of allowing students access to open blogs and social networking sites. Since internet access cannot be easily guarded, it becomes the responsibility of the teacher to train students on

dangers as well as implementing precautionary measures. Allowing access opens a door to a variety of dangers that no matter how well prepared cannot be totally blocked. However, since technology is consistently being adapted, teachers need to look for methods of incorporating technology that reduce the risk to students.

Another limitation is the responsibility placed on the teacher when incorporating technology. Segal-Drori, Korat, Shamir & Klein (2010) and Whitin (2009) point out the added responsibility on the teacher when incorporating technology in the classroom. Technology required teachers to balance the positives and negatives before implementing it in the classroom. This involves planning as well as incorporating checks and balances to ensure students are safe and successful. Educators now have to understand not only how students learn, but also what types of technology support student learning styles so they can successfully reach the assigned task. This will require a change in pedagogy that will most likely never keep pace with the technology that is available (Zheng, Warschauer, Farkas, 2013). Teachers must then become critical consumers of technology while also informing themselves about the most effective methods of instruction.

A final consideration when incorporating technology to differentiate instruction is that technology develops students to be prepared for the world they will encounter outside of school. However, most schools are evaluated through standardized test. Zheng, et. al. (2013) identify the disparity between writing tasks completed through technology and the method used for assessing students' writing skills through standardized testing. Schools find themselves caught between two opposing goals. Although using technology to differentiate instruction appears to benefit students, it does not always translate to positive application to a paper and pencil standardized

test. This forces schools and teachers to determine the appropriate balance between using technology and maintaining paper and pencil tasks.

Implications

The purpose of this synthesis was to look at the impact of using technology to differentiate instruction in the general education classroom. Since students are using technology in their daily lives, its application in the classroom setting can help teachers differentiate instruction and help diminish the gap between specific demographics. As new forms of technology emerge, teachers must be advocates for identifying effective technology and implementing it in the classroom. It is crucial for educators to understand not all technology is equal and it is their responsibility to implement technology that meets the needs of students.

Technology creates some specific advantages when differentiating instruction. Depending on what technology is used and how it is implemented impacts the results. However based on the findings, technology can be used to pace instruction so that students can accomplish learning objectives at an individual rate. Another important finding was the increased amount of time spent on task when technology was implemented to reach a learning objective. Mastery of learning objectives occurs more quickly when students have an opportunity to practice. Since technology is a part of most students' daily lives, students can easily connect the content of instruction to a real world application. This connection appears to increase motivation and helps create a positive learning community. For these reasons, technology, when properly implemented, can naturally differentiate instruction while also motivating students to accept responsibility for their own learning. However, these effects require educators to be a major contributor to the planning and application of technology in the classroom.

Discussion

Differentiated instruction is the process of matching student learning styles to appropriate instructional methods that ensures student mastery of learning objectives. As more and more technology becomes available to educators, it can be implemented in the classroom to help teachers differentiate instruction. With proactive educators, technology has the ability to aid teachers in differentiating by helping with pacing and critical thinking skills. When technology is implemented effectively, students tend to spend more time on task, show greater growth in skill mastery, tend to value the content more, and demonstrate more motivation toward meeting learning goals. However, the implementation of technology requires a shift in pedagogy in which teachers become responsible for helping students be critical consumers of technology.

Although the research shows many advantages to using technology to differentiate instruction, there are some limitations within the research. There are no proven measures that accurately reflect student growth when comparing technology tasks to paper and pencil tasks. Without consistent well-established measures between these two tasks, questions will arise as to how accurately each task is represented in the results. There is some debate as to what skills are being used in a task that uses technology and a task that uses paper and pencil. If the skills required for each task are different then comparing the two would be inappropriate. Another consideration should be the changes and adaptations of technology that are available in the education setting. It is difficult for research to keep up with how quickly technology becomes available. For this reason, it can be difficult to find research on specific topics of technology.

However even with the limitations, technology appears to be a viable option for meeting the demands of differentiating instruction in the general education classroom. Even though it requires some changes in pedagogy, the shift necessary to implement technology seems to

support student learning. Additional the research shows that such a change encourages student growth and leads towards creating independent learners. Therefore, educators must decide what is best for student learning. Incorporating technology to differentiate instruction is beneficial to student learning, but may not yield astronomical gains on standardized tests. However, technology should only be implemented when it truly supports the objective being taught. Technology is just a tool and teachers are the key to using it for the benefit of students.

References

Davies, R., Dean, D., & Ball, N. (2013). Flipping the classroom and instructional technology integration in a college-level information systems spreadsheet course. *Educational Technology Research & Development, 61*(4), 563-580. doi:10.1007/s11423-013-9305-6

Gunter, G. A. (2012). Digital booktalk: Creating a community of avid readers, one video at a time. *Computers in the Schools, 29*(1), 135-156. doi:10.1080/07380569.2012.651426

Huang, Y., Liang, T., Su, Y., & Chen, N. (2012). Empowering personalized learning with an interactive e-book learning system for elementary school students. *Educational Technology Research & Development, 60*(4), 703-722. doi:10.1007/s11423-012-9237-6

Leland, C., Ociepka, A., & Kuonen, K. (2012). Finding our way: Eighth graders explore social networking sites. *Voices from the Middle, 19*(4), 28-33. Retrieved from http://ezproxy.twu.edu:2048/login?url=http://ezproxy.twu.edu:2060/login.aspx?direct=true&db=eric&AN=EJ976268&site=ehost-live&scope=site; http://ezproxy.twu.edu:2400/journals/vm/issues/v19-4

Mills, K. A., & Chandra, V. (2011). *Microblogging as a literacy practice for educational communities* Wiley-Blackwell. doi:10.1598/JAAL.55.1.4

Mills, K. A., & Levido, A. (2011). Iped. *Reading Teacher, 65*(1), 80-91. doi:10.1598/RT.65.1.11

Rosen, Y., & Beck-Hill, D. (2012). Intertwining digital content and a one-to-one laptop environment in teaching and learning: Lessons from the time to know program. *Journal of Research on Technology in Education, 44*(3), 225-241. Retrieved from

http://ezproxy.twu.edu:2048/login?url=http://ezproxy.twu.edu:2060/login.aspx?direct=true&db=a9h&AN=72396488&site=ehost-live&scope=site

Segal-Drori, O., Korat, O., Shamir, A., & Klein, P. S. (2010). Reading electronic and printed books with and without adult instruction: Effects on emergent reading. *Reading and Writing: An Interdisciplinary Journal, 23*(8), 913-930. Retrieved from http://ezproxy.twu.edu:2048/login?url=http://ezproxy.twu.edu:2060/login.aspx?direct=true&db=eric&AN=EJ893980&site=ehost-live&scope=site; http://ezproxy.twu.edu:2079/10.1007/s11145-009-9182-x

Tomlinson, C. A., & Imbeau, M. B. (2012). Common sticking points about differentiation. *School Administrator, 69*(5), 18-22. Retrieved from http://ezproxy.twu.edu:2048/login?url=http://ezproxy.twu.edu:2060/login.aspx?direct=true&db=eric&AN=EJ982360&site=ehost-live&scope=site; http://ezproxy.twu.edu:3876/content.aspx?id=23118

Whitin, P. E. (2009). "Tech-to-stretch": Expanding possibilities for literature response. *Reading Teacher, 62*(5), 408-418. Retrieved from http://ezproxy.twu.edu:2048/login?url=http://ezproxy.twu.edu:2060/login.aspx?direct=true&db=eric&AN=EJ826848&site=ehost-live&scope=site; http://ezproxy.twu.edu:2079/10.1598/RT.62.5.4

Zheng, B., Warschauer, M., & Farkas, G. (2013). Digital writing and diversity: The effects of school laptop programs on literacy processes and outcomes. *Journal of Educational Computing Research, 48*(3), 267-299. doi:10.2190/EC.48.3.a

	Purpose	**Organization**	**Details**	**Quality of Content**	**Usage, Mechanics & Grammar**
	The degree to which the writer's response: ♦Establishes and maintains a clear focus on research topic ♦Demonstrates a strong awareness of audience and task ♦Exhibits clarity of ideas	The degree to which the writer's response illustrates ♦Unity ♦Coherence	The degree to which the details and supporting research are appropriate and support the main point(s) of the writer's response	The degree to which the content is comprehensive, from legitimate sources, clearly cited, and connected to the research topic as well as the extent to which multiple perspectives are examined.	The degree to which the writer's response exhibits correct ♦Mechanics - spelling, capitalization, punctuation ♦Grammar ♦Sentence structure ♦APA format
Outstanding	♦Establishes and maintains a clear purpose that is readily apparent to the reader. ♦Demonstrates a clear understanding of audience and task ♦Exhibits ideas that are developed in depth	♦Ideas are arranged logically to support the purpose and are clearly connected to the research topic ♦Clear focus ♦Fluent, cohesive	♦Depth and complexity of ideas supported by explicit, rich, engaging, and pertinent details ♦Strong evidence of analysis, reflection, insight	♦Provides a comprehensive review of significant and current in the field of literacy research ♦Provides compelling and trustworthy evidence from professionally legitimate sources ♦Provides attribution that is fair and clearly represented ♦Delineates clear patterns in the literature connected to the research topic ♦Examines multiple perspectives thoroughly ♦ Reader gains many important insights	♦Variety of sentence structure ♦Control of spelling, punctuation, and capitalization ♦Communication very clear ♦Consistent and correct use of APA format

Meets Expectations	♦Establishes a purpose, but at times digresses ♦Demonstrates awareness of audience and task ♦Develops ideas, but they have limited depth	♦Organized but has minor lapses in unity or coherence Occasionally is not consistently and clearly connect to research topic	♦Depth of idea development supported by elaborated, relevant details ♦Evidence of analysis, reflection, insight	♦Includes a good review of relevant, historical, and current works. ♦Provides valid/trustworthy evidence from legitimate professional sources ♦Attributes knowledge to sources ♦Connects patterns in the literature to the research topic. ♦Presents multiple perspectives ♦ Reader gains some important insights	♦Few errors in spelling, punctuation, and/or capitalization ♦Communication clear ♦Few errors in use of APA format
Below Expectations	♦ Purpose unclear: Attempts to establish a purpose but is not consistently clear. ♦Demonstrates limited awareness of audience and task ♦ Exhibits minimal development of ideas	♦Serious errors in organization: Inconsistencies in unity and/or coherence ♦Poor transitions or weak connections to research topic ♦Shift in purpose/focus	♦Details lack elaboration or are repetitious ♦Little, if any, evidence of analysis, reflection, insight	♦Presents insufficient knowledge in the field of literacy ♦Provides sources/citations of questionable legitimacy ♦Demonstrates sketchy analysis not well connected to the research topic ♦Fails to examine multiple perspectives; bias permeates discussion ♦ Reader is confused or misinformed	♦Errors in spelling, punctuation, and/or capitalization frequent and severe ♦Problems with language and sentence structure evident and often interfere with communication ♦Significant ineffective and/or incorrect use of APA format