

Accessing the General Education Curriculum: Using A Critical Thinking Approach to Guide Pre-Service Teachers' Decision Making That Promotes Inclusion for Students with Disabilities

Randy L. Seevers

University of Houston-Clear Lake
2700 Bay Area Blvd
Houston, Texas 77058

Abstract

This manuscript addresses the topic of using a critical thinking approach to work through issues that arise when including students with disabilities in the general education classroom. Particular focus is on understanding classroom diversity, collaborating with parents and other partners, maximizing learning through differentiated instruction, and managing the classroom to support students.

Keywords: pre-service teachers, differentiated instruction, collaboration, classroom management, diversity, critical thinking, inclusion

1. Background/overview

1.1 Inclusive practices

The Individual with Disabilities Improvement ACT (IDEIA) recognizes that children with disabilities have the right to access the general education curriculum in an inclusive environment, one that supports and meet their unique needs. Yet, there are some students with disabilities who are denied access to the general education classroom. Negative teacher attitude/perception is one obstacle families of children with disabilities encounter frequently, particularly toward students with developmental disabilities (Hassanein, 2014). Friend (2015) however, reports that student outcomes for children with disabilities generally are positive in inclusive schools.

1.2 Critical thinking

There are many working definitions of critical thinking. Nosich (2012) describes "critical thinking as a way of thinking through an issue reflectively and reasonably." In other words, critical thinking involves thinking about real problems. It requires a set of standards. Accuracy, relevance, and clarity are examples of criteria that are used to judge the elements of critical thinking. The result of using the standards guides the critical thinker to reason better. Elder and Paul (2012) further assert that much of our thinking, left to itself, is biased, distorted, uninformed, or downright prejudiced. Therefore, when we analyze our thinking, we must learn to identify and question its elemental structures, such as various points of views, assumptions, and what are the fundamental inferences or conclusions. The need for critical thinkers in a global society is well documented (Holmes, N.G., Wieman, Carl E., & Bonn, D. A., (2015). To be sure, there has never been a time when the expectations have been greater for teachers and those preparing to be teachers to think through issues critically.

2. Purpose

Given the demand for critical thinkers in our work force, the purpose of this research set out to examine pre-service teachers' ability to think critically, that is, how effective are pre-service teachers in: 1) recognizing the relevance of information (diversity, collaborating, differentiating instruction, managing the classroom) in establishing inclusive classrooms and drawing reasonable conclusions that are fair-minded, and 2) clearly and accurately identifying the key elements of critical thinking in their writing and thinking about inclusive education.

3. Methodology

3.1 Subjects and setting

Participants in this study were 90 pre-service teachers at a mid-size university in the Southwest. The sample was selected in a way to include participants with a wide range of teaching interest. Major areas of certification include K-12 English as a second language (ESL), K-12 bilingual, K-6 generalists, and secondary content (math, social studies science, art, language arts). Anonymity of all the participants was assured through the use of pseudonyms.

3.2 Procedure

All pre-service candidates were introduced to the Paul-Elder Framework & the Elements of Thought(2014) during the first two class sessions of an introductory course in special education. In other words, participants were instructed and shown how to use the elements of critical thinking to work through a problem or issue. Specifically, pre-service candidates practiced using the vocabulary of critical thinking (Elder& Paul, 2012) which include an understanding and use of both the elements of thought and universal intellectual standards. The eight elements of thought considered included the following: 1) purpose, 2) question at issue, 3) information, 4) interpretation, 5) concepts, 6) assumptions, 7) implications and consequences, and 8) point of view. The universal intellectual standards focused on clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness. After session two, pre-service teachers had twelve weeks to complete all sections of four on-line modules (IRIS Center Video Supplements and Resources, Peabody School of Education at Vanderbilt) that centered on the following topics/prompts: 1) understanding diversity, 2) collaborating, 3) differentiating instruction, and 4) managing the classroom. Pre-service candidates were required to view the module content, answer assessment questions, and watch selected video vignettes in each of the four modules. After completing each module, pre-service candidates were expected to complete writing reflections, one each on the four prompts/topic areas above.

That is, writing reflection one centered on classroom diversity. In writing reflection two, candidates addressed their understanding of collaborating with families and other partners. Writing reflection three examined the pre-service candidates' understanding of effective implementation of differentiation instruction. The last reflection directed the pre-service candidates to explore their understanding of classroom management. In particular, candidates were asked to write a minimum of a one-page reflection on how the information related to their goals as an educator, how the information could be used to foster inclusive classrooms, and explicitly indicate which element of thought they used in expanding their understanding of the content. These assignments required their critical analysis of the topics using the critical thinking language. Guidance for writing the reflections was provided and the intellectual standards were used to provide the candidates feedback on their writings.

3.3 Data collection

A qualitative descriptive research design was implemented, one in which the researcher analyzed the pre-service candidates' writing samples. Pre-service teacher candidates' reflections were evaluated using the Paul & Elder framework and intellectual standards (2012). Each of the four reflections was scored using a rubric. For instance, 2 points (exemplary) were awarded to candidates whose reflections of the module learning experience was thoughtful and insightful. That is, pre-service candidates had to include specific comments that directly connected to their present learning and possible future applications. Candidates also had to recognize the relevance of the information in establishing inclusive classrooms and draw reasonable conclusions that were fair-minded. Thus, the candidates who earned 2 points (exemplary), were able to both distinguish between relevant information and irrelevant information and draw reasonable conclusions based on the supportive data. In addition, the pre-service candidates were required to explicitly indicate one or more critical thinking element used to analyze their understanding of the material (clearly and accurately identifying the key elements of critical thinking in their writing about inclusive education). One point (acceptable) was given to the pre-service teacher candidates when the reflections were thoughtful and included general connections to present learning. Candidates also indicated an element of thought and some evidence of how the assignment (module/videos) expanded their knowledge, understanding and thinking about the topic. That is, candidates adequately described some information that supported planning and implementing instructional experiences and interactions for students with disabilities in the general education classroom.

No points were awarded (unacceptable) when the reflections were mostly a summary of content and void of evidence of how the module expanded their knowledge, understanding, and thinking about the topic. In addition, no points were given if the reflections were disconnected to the topic or too broadly written to demonstrate impact of topic on present learning.

4. Results

4.1 See Table 1 for Summary of the Results

	Exemplary (%)	Acceptable (%)	Unacceptable (%)	Total (%) Satisfactory
Understanding classroom diversity	20%	72%	8%	92%
Collaborating with families and other partners	21%	71%	8%	92%
Maximizing learning through differentiated instruction	28%	67%	5%	95%
Managing the classroom to support students	35%	63%	2%	98%

Table 1

Candidates expressed in writing, various elements of critical thinking when reflecting upon important issues, such as classroom diversity, collaboration, differentiated instruction, and classroom management. The majority of teacher candidates were able to recognize relevant information necessary in establishing inclusive classrooms and draw reasonable conclusions that were fair-minded. Table 1 set out the percentage of pre-service candidates who received a rating of exemplary, acceptable, and unacceptable in each of the four topic areas.

4.2 Understanding classroom diversity

A majority of pre-service teacher candidates (72%) made mention of at least one critical thinking element and some reference to information from the learning module (classroom diversity) that helped contribute to their understanding of including students with disabilities in the general education classroom. One pre-service teacher explains that educators need to look beyond their own initial perceptions and consider various points of views:

“All in all, when it comes to understanding student diversity and varying cultures in the classroom, I think it is paramount for teachers to constantly take the extra time in order to see past whatever preliminary notions they may have for students. Every learner is entitled to equal access to education and it is impossible to provide it to them if their teacher is hung up on outdated ideas about student potential.” (Ted).

Other pre-service teachers (20%) provided more than one critical thinking element in their reflection and specifically linked the content to their future classrooms. One respondent writes:

“The elements of thought I used in expanding my understanding of diversity was Question at Issue and Point of View. As an educator, I need to do everything possible to make sure all my students get the best education possible. I am going to be a biology teacher, meaning I have to teach the theory of evolution at one point, which is very controversial due to religious differences. All the information from the module has taught me the different types of diversity in today’s classroom. I only considered culture differences and socioeconomic differences, so it’s a little overwhelming knowing it’s not just that.” (Jane).

Another participant further explains how she has decided to be proactive instead of reactive when including all students in the classroom:

“The module on classroom diversity speaks to exactly the type of environment I want to create in my classroom. I want to create an effective classroom that fosters individuality and acceptance by considering each student’s culture, language, socioeconomic status, sexual orientation, and exceptionalities so that I may best access their needs and ensure they reach their full potential. I intend to get to know my students as individuals so I can determine whom I am teaching. In getting to know them, I can self-correct any unintentional, inaccurate assumptions I may have, and ensure I am responding to their learning needs accordingly.” (Marti).

4.3 Collaborating with families and other partners

Pre-service candidates (71%) recognized at least one critical thinking element of thought and connected the information from the module on collaboration back to their own learning. One candidate expands on her thinking, including the element, question at issue:

“Until this module I never considered some of the questions at issue parents of children with disabilities encounter. I gained new information and insight on some of the stressors associated with being a parent of a child with disabilities. I want to provide guidance, support, and encouragement at every turn to show them how much they are appreciated. I intend to focus on personalized communication practices that foster parental involvement in ways that are flexible and most convenient for the parent, whether it be emails, conference calls, or face-to-face time.” (Cheryl).

Another pre-service teacher simply states:

“My purpose as a classroom teacher has changed now about how I am going to collaborate with families. I will make it a point in my teaching to be involved and not let the parents of a child with disabilities feel left out or feel like they are not supported. I am going to do my best to work with parents to help their child succeed.” (Alexandria).

Twenty-one percent of pre-service teachers included more than one elements of thought and related the content on collaboration back to their goals as an educator and how the information could be used to foster inclusive classroom. One learner affirms the impact assumptions have on our interactions with parents and how considering points of view other than our own can foster inclusion:

“First, teachers need to understand the parent’s point of view and recognize that teachers may need to implement different strategies to assist families of children with disabilities and their involvement in the school setting. An assumption that people may make about parents who are not involved in school activities is that they don’t care. For parents of a child with a disability, the challenges they face on a day to day basis may take precedence over school priorities. As a teacher, I need to look for other ways to get them involved.” (Ruth).

Janelle acknowledges co-teaching as a means to collaborate in order to support students with disabilities in the general education classroom:

“Dedicated professionals are willing to work together, share roles and responsibilities, and collaborate with others to create achievable lesson plans that benefit all students.”

4.4 Maximizing learning through differentiated instruction

A significant number of pre-service teachers (67%) met the acceptable criteria established for mastery of the content on differentiated instruction and using critical thinking in their reflections. Interestingly, a larger number of pre-service teacher candidates (28%) achieved exemplary status on this content area, higher than on previous content areas (classroom diversity and collaboration). One learner, for example, makes clear connections to her learning:

“When I gather the necessary data, I am able to draw meaningful conclusions that lead to better instructional decisions which ultimately help the students with a disability in my class.” (Lane)

Furthermore, Brett provides a deeper understanding of the content:

“The concept of Universal Design for Learning (UDL) supplies the method and information by which teachers may customize and differentiate instruction based on students’ individual needs. The UDL is meant to shift and bend in order to serve each unique learner as best it can, adapting curriculum and differentiating instruction in order to ensure equal access and opportunity for learning and for every student in the classroom. Whether a student is dyslexic, has cultural differences, deals with cerebral palsy, requires longer time for instruction and implementation, or requires spontaneity and novelty in order to learn at their highest potential, the UDL will allow for a route outside of the traditional “one-size-fits-all” curricula.”

4.5 Managing the classroom to support students

A concern for many pre-service and beginning teachers is classroom management. It is no surprise then that more than a third (35%) of the pre-service candidates referred to more than one element of critical thinking and were able to articulate their understanding of the content in a clear, concise manner, with relevant examples, when reflecting upon the classroom management module. In addition, the candidates accurately described effective and relevant information that support positive experiences and interactions in the general education classroom. Sixty-three percent of the participants were adequately able to express their understanding of the content and relate it to practice. As Katy describes it:

"I was excited to work on this module for the exact reasons stated in the module: new teachers fear bad student behavior."

Another pre-service candidate surmises:

"This module (classroom management) helped me realize that being a teacher is not just about getting degree, it is about how to help and encourage students to learn and be successful in life." (Sara)

5. Discussion

Introducing the elements of thought encouraged pre-service teacher candidates to "think about their thinking" (Nosich, 2012). There was a fairly rapid change in their thinking process once the elements of thought were practiced. The elements of thought became a tool for the pre-service candidates to use to reflect upon their own understanding of new content and apply it to real life situations. This self-assessment allowed for the participants to actively engage in their own learning. Consequently, the pre-service teachers used critical thinking to gain a deeper understanding of new material and were able to apply the information to novel situations. Certainly, the candidates recognized relevant information necessary in establishing inclusive classrooms and drew reasonable conclusions that were fair-minded. Clearly, the candidates critically thought through how they could use new knowledge obtained from the on-line learning modules in order to become successful inclusion teachers. As a matter of fact, the pre-service teacher candidates were sensitive to and sought out ways to include students with disabilities in the general education classroom based on new content knowledge, and as a result of their ability to think critically, the candidates became more thoughtful and insightful.

6. Conclusions

Research supports the need for critical thinkers. Critical thinking is a skill often not taught or modeled in today's classroom. Indeed, teacher educators cite that teachers in training do not know how to think (Hadar, L. & Brody, D., 2010). The research presented here suggests that providing pre-service candidates a critical thinking framework is one way to increase the likelihood that pre-service teachers will draw reasonable conclusions that are fair-minded, ones that are more apt to establish inclusive practices.

7. References

- Elder, L. & Paul, R. (2012). *The Thinker's Guide to Analytic Thinking*. To males, CA: Foundation for Critical Thinking Press.
- Friend, M. & Bursuck, W. D. (2015). *Including Students with Special Needs: A Practical Guide for Classroom Teachers*. Boston, MA: Pearson.
- Hadar, L., & Brody, D. (2010). From isolation to symphonic harmony: Building a professional development community among teacher educators. *Teaching and Teacher Education*, 26(8), 1641-1651.
- Hassanein, E. (2014). Changing teachers' negative attitudes toward person with intellectual disabilities. *Behavior Modification*, 39(3), 367-389.
- Holmes, N.G., Wieman, Carl E., & Bonn, D. A., (2015). Teaching critical thinking. *Proceedings of the National Academy of Sciences of the United States of America*, 112(36), 11199-11204.
- Nosich, G. M. (2012). *Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum* (4th edition). Boston, MA: Pearson.
- Paul, R., & Elder, L. (2009). *Critical thinking: Concepts and Tools* (6th edition). To males, CA: Foundation for Critical Thinking Press.
- The IRIS Center for Training Enhancements. (2012). *Classroom diversity: An introduction to student differences* Retrieved from <http://iris.peabody.vanderbilt.edu/module/div/>
- The IRIS Center for Training Enhancement. (2012). *Classroom management (Part 1): Learning the components of a comprehensive behavior management plan*. Retrieved from <http://iris.peabody.vanderbilt.edu/module/beh1/>
- The IRIS Center for Training Enhancements. (2010) *Differentiated instruction: Maximizing the learning of all students*. Retrieved from <http://iris.peabody.vanderbilt.edu/module/di/>
- The IRIS Center for Training Enhancements. (2008). *Collaborating with families*. Retrieved from <http://iris.peabody.vanderbilt.edu/module/fam/>