Helping Preservice Special Educators Scaffold the Reflection Process

Elissa Wolfe Poel, Ph.D.

Monica R. Brown, Ph.D.

Luis-Vicente Reyes, Ph.D.

Cristóbal Rodríguez, Ph.D.

New Mexico State University

Abstract

Teacher candidates, because of their lack of experience, often display signs of apparent understanding which leads to professional practice and behaviors that are blind, impulsive and many times not appropriate. Through dialogue and reflection, the authors became concerned as to how to scaffold a richer learning opportunity that would lead toward a more effective and engaging practice. In order to deepen teacher candidate pedagogical understanding, the authors implemented an action research project to address the issue. In this article, the authors characterize action research, share their lived experiences regarding how they have improved their professional practice in preparing special education teacher candidates by creating a systematic process for reflection, and describe how to use the KALH (Knowing, Affective, Leaning, and Happening) to assist pre-service teachers in their attempt to scaffold their learning. Provided are (a) what we learned from the action research, and (b) examples regarding how the KALH reflection strategy might be used by following the reflection process.

Scaffolding the Reflection Process

Field experiences create opportunities for teacher candidates to practice theories they have learned in the university classroom juxtapose with the experience gained from their work with children (Etscheidt, Curran, & Sawyer, 2012; Snyder, 2011). Dewey (1938) maintained that reflection is an important aspect of learning from experience, in which reflection leads us to act in deliberate and intentional ways instead of acting in blind and impulsive ways. As researchers, what we have observed in our field experiences is that teacher candidates lack a deep understanding of their work with children, as well as how to connect theory to practice. Too often teacher candidates appear to be satisfied with limited signs of understanding and over look the importance of in depth reflection. Reflective practices provide the opportunity for teacher candidates to critically examine their experiences and assumptions while considering the cultural dimensions of their practice and society, which in turn leads to changes in their behavior and pedagogy (Mezirow, 2000; Young, Mountford, & Skrla, 2006; Rich & Hannafin, 2009).

Acknowledging the challenges of the teacher candidates to critically bridge theory to practice led the researchers to think about how they could cultivate a richer learning experience for teacher candidates during their field experience/student teaching semester.

Cognizant of the No Child Left Behind Act of 2001 (NCLB) legislation and its impact on the preparation of teacher candidates in the field of special education, the authors used action research to systematically reflect upon their teacher preparation practice specific to addressing the bridge from theory to practice. The term highly qualified, which is complex and multilevel, is a major focus of the NCLB Act. The criteria identifying a highly qualified teacher as outlined in the NCLB Act are: (a) passing state teacher licensing exams, (b) mastering subject matter knowledge and teaching skills in the academic subjects that they teach, (c) earning undergraduate/graduate degrees in education, and (d) receiving state licensure. East (2002) stated,

> …many questions have been raised about the implications of NCLB for special education.…In some cases, the implications are quite clear, e.g., students with disabilities need to be included in a state's new accountability system and data has to be disaggregated for students with disabilities. But in other places, the intersection of the laws is not at all clear (p. 1).

Knowing the implications that the NCLB Act presents to the preparation of special education teachers, compounded with knowledge gained about teacher candidates in their field experience/student teaching, the authors are continually challenged to effectively train highly qualified teachers for careers in the field of special education. They argue that the NCLB legislation is theorized in a technocratic and instrumentalist paradigm and that the criteria set forth for defining a highly qualified teacher is not sufficient. Although they teach in a teacher preparation program that helps meet the criteria for highly qualified teachers as outlined in the NCLB Act, the authors expanded the NCLB criteria for a highly qualified teacher by systematically improving their teacher preparation practice to include that teacher candidates acquire a disposition of in depth reflective practices. Moreover, seeing that the reauthorization of the original Elementary and Secondary Education Act (ESEA) has been around the corner for several years now, we posit that reflective practices, or transformational learning, on behalf of the teacher candidate positions teachers for the real demand for highly qualified teachers.

Characteristics of Action Research Methodology

Sagor (1992) stated that, "action research … is conducted by people who want to do something to improve their own situation. When other people read about their work, notice it, or make use of it that is simply icing on the cake. Action researchers undertake a study because they want to know whether they can do something in a better way" (p. 7).

This action research project was about improving practice in critically preparing special education teacher candidates. The major goals were to better understand how to engage teacher candidates in the reflection process regarding their learning as a result of their

field experience and to think about how to critically improve teacher preparation. The guiding question that framed the work toward improving learning for teacher candidates from their field experience was: What would happen if teacher candidates were given opportunities to systematically reflect on their lived experiences during their field experience? The action research strategy included the following five phases as suggested by Fischer (1996): (a) Phase 1: Identifying a topic for research, (b) Phase 2: Inquiring with observations, interests, and ideas that are systematically pursued, (c) Phase 3: Developing an action plan, (d) Phase 4: Collecting compelling and convincing data, (e) Phase 5: Analyzing the data and identifying patterns, themes, and meanings. Following is a discussion of each phase.

Phase 1: Identifying a Topic for Research

To begin, the researchers engaged in numerous conversations about the work they were doing in their student teaching program in relationship to the NCLB legislation. Dialogue was used as a means to identify and develop questions along with the search for answers. A guiding question that emerged from this dialectical encounter was: *How do we know when something is going well in our seminar and field experience?* What was learned was that the Teacher Preparation Program was doing very well in preparing special education teachers to work in settings with children with disabilities. This was evidenced by the 100% passing rate of the state teacher assessment, cooperating teacher evaluations, university supervisor evaluations, school districts aggressive hiring practices, and the researchers' professional judgments when working with special education teacher candidates during the field experience. What was realized was that these assessments identified the knowledge base of teacher candidates and not necessarily the bridge from theory to practice that demonstrates the in depth understanding field experience supervisors are seeking to identify.

Another guiding question that emerged from the researchers' dialectical encounters was, *How did we get good at preparing teacher candidates to work in settings with children with disabilities?* The researchers realized that their passion for professional development and staying current with best practices in the field were contributors in their efforts to becoming excellent teachers themselves and in their mission to develop critically informed special education teachers. It became evident that there was a strong relationship among the cooperating teachers, university supervisors, teacher-candidates, and researchers. The field experience/student teaching provided guidance, mentoring, and learning activities intended to scaffold student knowing of *best practices* (i.e., collaborative lesson planning, seminar discussions, triad sessions) in the field. As the dialogue about their work continued, the researchers asked the final, guiding question for this phase, *What is missing?* This question positioned the researchers to begin to critically think about their teaching practice in the field experience. As the researchers thought about their practice in terms of bridging theory to practice, they came to the conclusion that the best way to answer the question was through systematic inquiry into their practice. This realization led to Phase 2 of the Action Research study.

Phase 2: Inquiring With Observations, Interests, and Ideas Systematically Pursued

The inquiry began by conducting observations of teacher candidates and exploring the researchers' personal interests and ideas in relation to the preparation of special education teacher candidates. What stood out from this exploration was the suggested definition of teacher quality proposed by the NCLB legislation, which became problematic. They argued that a quality teacher defined by the attainment of degrees, licensure, and passing rigorous state exams was not enough. The researchers added another component to the definition, that of becoming reflective practitioners. Martusewicz (2001) stated,

> Of all professionals, educators ought to be able to think about whom they have been, who they are becoming and what the world they live in has to do with any of this. Moreover, they ought to be in the habit of asking what their relation to and experience of the larger world around them has to do with what they believe about teaching and learning, about education, and therefore what they believe education offers a person or a community or the larger world. They ought to be able to ponder what kind of person the world needs and thus make choices for what they ought to be doing in their own classrooms. If they don't, someone else surely will (p. 21).

What was gleaned from Martusewicz's words is the challenge to rethink the present work and responsibilities in the preparation of special education teacher candidates. As reflective practitioners, the attainment of knowledge in content areas, disabilities, and skills for working with children with disabilities is expected. To become a reflective practitioner, teacher candidates must be able to systematically reflect on their practice (Boden, Cook, Lasker-Scott, Moore, & Shelton, 2006). The result of this reflection leads teacher candidates to exercise professional judgment, which ultimately translates into professional change (Jewiss, & Clark-Keefe, 2007; Oner & Adadan, 2011; Rich & Hannafin, 2009).

During the field experience/student teaching, the researchers identified that teacher reflection was a weak component as evidenced in the reflective assignments (e.g., daily lessons, classroom observations, assessments) and their classroom teaching behaviors. The researchers questioned the quality, depth, and usefulness of these assignments and the impact of their classroom teaching behaviors on student learning. What was evident in the written assignments was an indication of superficial professional judgment. The work demonstrated knowledge of many content areas but lacked a strong voice demonstrating understanding. Wiggins and McTighe (1998) argued that knowing does not mean understanding. Wiggins and McTighe further stated, "In short, what we call understanding is not a matter of "mere" semantics but one of conceptual clarity. We sharpen the distinction between a superficial or borrowed opinion and an in-depth, justified understanding of the same idea" (p. 40).

The evidence of understanding that the researchers were looking for from the teacher candidates was the interplay of skills, knowledge, and professional dispositions which lead to understanding of how children with disabilities demonstrated learning that

resulted from the lessons presented to them in the classroom. What the teacher candidates were focused on was the delivery of instruction solely versus the gained knowledge of content by the children. Through discussions in the field experience/student teaching, the same occurrence of understanding was evident. When teacher candidates were asked to share during the field experience/student teaching seminar the learning that children gained by participating in a certain lesson, the teacher candidates reported, "the lesson went well, the kids had fun, and I would do it again." When asked how they knew that the children learned the content of the lesson and that the lesson objectives were met, they responded by saying that, "If the lesson went well, that would indicate that children learned what they were supposed to have learned and that the objectives were met, they had fun."

What was interesting to note was that teacher candidates viewed assessment as a separate component of a class lesson and not an integral part of the lesson. What they neglected to identify was that the use of assessment (e.g., children's evidence of gained knowledge) should be the determinant that the curriculum and instruction was successful versus that the children had fun during the planned activities. After formal classroom observations and discussions with cooperating teachers, teacher candidates, and university supervisors, the same conclusions were derived. Upon further dialogue with the teacher candidates, the university researchers realized that teacher candidates were not able to really understand if children were learning because they lacked in depth, reflective thinking that could provide them with concrete examples to support the gained knowledge. Knowing this, the researchers created the following research problem statements and research questions to provide the focus for this Action Research study.

Problem Statements

- Teacher candidates' reflection assignments on daily activities in the classroom lack evidence of critically bridging theory to practice in student learning outcomes, lesson process, procedural development, and student/teacher interactions.
- Teacher candidates' reflection assignment of their observational work of master teachers demonstrate superficial understanding of best practices modeled by master teachers as opposed to in depth critical understandings of theory to practice.

Research Questions

- How will the use of a reflection tool that bridges theory to practice assist teacher candidates in the reflection process and, ultimately, their critical transformational experience?
- How will the use of a reflection tool that bridges theory to practice scaffold understanding of curriculum development, implementation, evaluation, and instructional change?

- How will the use of a reflection tool that bridges theory to practice structure reflection that builds confidence in teacher candidates to exercise professional judgment that leads to critical professional change?

Phase 3: Developing an Action Plan

Prior to developing the action plan, the researchers developed the KALH Reflection Strategy as the starting place for improving teacher candidates' reflective practices. Once the KALH Reflection Strategy was developed, the researchers felt the need to field test the tool for clarity and effectiveness. Initially, the KALH Reflection Strategy had four components: Knowing, Affect, Happening, and Learning. In addition to the KALH, the candidates were required to provide Examples as an indication that they had ultimately connected their reflection to change in their behavior and pedagogy thereby solidifying the critical transformational experience (Mezirow, 2000; Young, Mountford, & Skrla, 2006).

Dieker and Monda-Amaya (1997) stated that, as the focus on developing reflective practitioners increases, there needs to be an examination of the various techniques that affect pre-service teachers' reflective thoughts. Gray (2007) advocated for the development of critical reflection through reflective tools (i.e., storytelling, reflective and reflexive conversations, reflective dialogue, reflective metaphor, journals, etc.) and this led to the creation of the KALH (see Figure 1). What we have done in this article is present one additional "tool" for eliciting critical reflection from teacher candidates.

Figure 1: KALH Reflective Tool

KALH
Reflection Strategy

The KALH reflection process that can be used as a guide through the reflection process.

Reflective Process	Guiding Questions	Concrete Examples (**E**)
Knowing	What do you remember hearing, seeing, or doing?	Include concrete examples in your response.
Affective	How did you feel? When were you excited? When were you frustrated? When were you empathetic? When did you experience anger? What other feelings did you experience and when?	Include concrete examples in your response.
Learning	What would you tell someone who was not in attendance?	Include concrete examples in your response.
Happening	What are you going to do with the information you learned?	Include concrete examples in your response.

Pilot Study

Setting

The pilot study took place in a minority-serving institution located in the southwest. The university is located 45 miles northwest from the United States and Mexico border. The university population is approximately 17,000 undergraduate and graduate students of which 42% are Latino/a, 37% White, 4% international, 3% American Indian, 3% African American, 1% Asian/Pacific Islander, and 9% other. The teacher preparation program is located in the College of Education, Department of Special Education/Communication Disorders.

Field Experience

In addition to a field experience, teacher-candidates were required to attend a 2.5 hour weekly seminar. The seminar is team taught by a general education university faculty

member and a special education university faculty member. The seminar was where the pilot study of the KALH Reflection Strategy took place.

Participants

A convenience sample of 109 teacher candidates (undergraduate and graduate students) from the licensure areas of early childhood, elementary, bilingual education, special education, and secondary education participated in the study. Their ethnic backgrounds included: 20% White, 70% Latino/a, and 10% African American; 90% were females, and 10% were males.

Pilot Study Discussion

Initially, the KALH Reflection Strategy was used as a tool for teacher candidates to use in order to reflect upon a panel presentation that was scheduled as part of the seminar activities and was led by elementary school principals. After the panel presentation, teacher candidates completed a reflection assignment on the presentation by using the KALH Reflection Strategy. In addition, they were instructed to write comments about the KALH Reflection Strategy and its usefulness in scaffolding their reflection. The following responses emerged from the exercise:

Teacher candidates' responses to the first stage of the KALH Reflection Strategy **KNOWING** focused on what they heard, saw, or did during the presentation. See Table 1 for examples of candidates' responses.

Table 1. KALH Reflection Strategy: Knowing Responses.

Student	Responses
1	"I saw how attentive they [principals] were to our questions."
2	"I listened very closely to what they were saying and remember myself trying to make meaning of what they were saying."
3	"…everybody in the room was involved with the discussion."
4	"I remember the principals telling us that it was important for us to really think about our commitment to teaching. I also remember them telling us that today's schools are heavily governed by regulations, standards, testing, and the big word accountability."

Teacher candidates' responses to the second stage of the KALH, the **AFFECTIVE,** appeared to be a little more difficult. Responses to this aspect were basically short, limited, and non-descriptive. Table 2 provides examples of candidates' responses.

Table 2. KALH Reflection Strategy: Affective Responses.

Student	Responses
1	"Most of what I heard made me feel happy."
2	"It relieved my stress a lot to get an inside idea about interviewing."
3	"The most impressed part about nearly every speaker was their love and enthusiasm for their job. They truly presented a positive face and had so many positive comments."
4	"During the whole presentation, I felt very relaxed and comfortable with what was being asked."
5	"I feel the principals were all very professional, and I felt motivated to go right out and submit résumés."

Teacher candidates' responses to the third stage of the KALH, **LEARNING,** positioned them to focus on fact. Table 3 shows how they responded.

Table 3. KALH Reflection Strategy: Learning Responses.

Student	Responses
1	"It is also good to know for all to bring references to the interview because I thought that having them at the Career Placement Center was enough."
2	"I would tell someone who is not in attendance to be sure to bring references with them to an interview and to also bring a sample of their work that could be left behind."

Teacher candidates' responses to the fourth stage of the KALH, **HAPPENING,** positioned the teacher candidates to plan and use the newly acquired information.

Table 4. KALH Reflection Strategy: Happening Responses.

Student	Responses
1	"I will go more prepared to interviews knowing what they expect to see."
2	"I will sell myself to the school."
3	"I will put together my packet for interviewing. I know what they want. I know what papers will be helpful, and I know what questions might be asked so I can help prepare myself."

As previously stated, teacher candidates were asked to write comments about the use of the KALH. Table 5 provides examples of additional comments provided by students.

Table 5. KALH Reflection Strategy: Additional Student Comments.

Student	Responses
1	"The guide was very helpful; it was easy to write on the topic."
2	"It broke concepts into easy to dissect pieces so that I wasn't overwhelmed."
3	"I like how the guiding sparked my memory and helped me recall information presented."
4	"The KALH was very helpful for me because I was able to express myself in writing easier."
5	"The KALH process was helpful. It helped me decide what I needed to write."

What the researchers gained from the pilot study of the KALH Reflection Strategy was evidence that the KALH helped to scaffold teacher candidates' reflection on the principal panel presentation. Based on the data obtained from the pilot study, the researchers concluded that even though the KALH helped to scaffold and elicit a stronger reflection as demonstrated in the teacher candidates' writing assignments, there were still not enough specific examples in their responses to each stage of the KALH to support their comments. Wiggins and McTighe (1998) told us that "understanding is always a matter of degree, typically furthered by questions and lines of inquiry that arise from reflection, discussion and use of ideas" (p. 45). The researchers believed that having teacher candidates include specific examples to support their comments would move them into a richer reflective process. Therefore, the candidates were required to provide specific example for each area of KALH. See how it was incorporated in Figure 1. Feeling confident that the KALH was complete, the researchers continued their action research study geared toward improving their teacher preparation practice by creating an Action Plan to implement in their seminar and study how their teacher preparation practice improved.

Table 6. Scaffolding the Reflection Process

Action Step	Person Responsible	Timeline	Evaluation
Dialogue	Researchers	Ongoing	Field Notes
Develop KALH	Researchers	First Semester	KALH Tool
Pilot Study	Researchers	First Semester	Data, Artifacts
Action Step	Person Responsible	Timeline	Evaluation
Revise KALH	Researchers	Second Semester	KALH Tool
Integrate KALH	Researchers	Ongoing	Artifacts
Action Research	Researchers	Second Semester	Artifacts
Data Analysis	Researchers	Ongoing	Artifacts
Improve Practice	Researchers	Ongoing	Artifacts

Phase 4: Collecting Compelling and Convincing Data and Action Plan Implementation

Martusewicz (2001) in her work with undergraduate students asked,
> What does it mean to become educated? I asked them this because I believe that people who teach must be able to reflect upon that question, not in order to come to some final or certain answer, but to constantly challenge themselves to be conscious of what they are doing in relation to what they believe they ought to be doing (p. 20-21).

The researchers echo Martusewicz's words in their teacher preparation practice and have come to believe that reflection is critical for teacher candidates. The KALH was developed as a means to improve teacher preparation practice, to scaffold teacher candidates' reflective practice, and "to be conscious of what they are doing in relation to what they believe they ought to be doing" (p. 21). Each of the 5-stages of the KALH strategy systematically guides teacher candidates to reflect about a teaching situation leading to act in appropriate ways. In an attempt to find answers to the problem statements, why do teacher-candidates' reflective assignments on daily activities in the classroom lack evidence of understanding of student learning outcomes, lesson process, procedural development, and student/teacher interactions; and why do teacher candidates' reflective assignments of their observational work of master teachers, demonstrate superficial understanding of best practices modeled by master teachers, the researchers proceeded to collect data, reflect on the process, and search for solutions.

Steinberg and Kincheloe (1998) provided an interpretative inquiry model that was used as a framework for data collection for the study,
> As we think about the progress or development of an interpretative inquiry project, it can be helpful to visualize it as a series of loops in a spiral. Each loop may represent a separate activity that looks like data collection and interpretation. When a study is viewed as a series of loops and spirals, each loop represents a different attempt to get closer to what you hope to understand. Each loop, or separate inquiry, is entered with a question. What is learned in the loop provides direction or a reframing of the question for the next loop (p. 52).

Visualizing the data collection as a series of spiral loops, the researchers first collected reflective assignments from teacher candidates and reviewed them throughout the study. The researchers developed and used a rubric to evaluate teacher candidates' understanding of their seminar assignments. Their work included four classroom observations with reflective write-ups, weekly philosophical exercises, daily lesson plans with a reflection component, and a journal maintained between the teacher candidate and the cooperating teacher.

Even though the KALH was used with all of the teacher candidates (n = 109), data collection was focused on the special education teacher candidates (n = 8): females (7) male (1); White (4); Hispanic (4). On the first day of the seminar

(second semester), teacher candidates were given an orientation to the development of the KALH and its use in all of the seminar assignments. Teacher candidates used the KALH to complete all of their written assignments during the semester. The researchers then reviewed each teacher candidate's assignments to determine if the KALH did, indeed, scaffold their reflective practice.

A one-hour videotaped focus group was conducted with teacher candidates at the end of the semester. The focus group was organized to engage teacher candidates in a conversation on the use and effectiveness of the KALH strategy. The structure of the focus group consisted of (a) welcoming students and thanking them for participating in the study, (b) participating in answering four open-ended questions, and (c) encouraging participants to share additional comments, which were documented as field notes with the researchers. The four questions posed to the group were:

1. How does the KALH strategy scaffold your learning and improve your teaching practice?
2. What is exciting about the use of the KALH strategy?
3. Do you think the use of the KALH is important in teacher reflection? Why? Why not?
4. Will you continue using the KALH strategy in your teaching career? Why? Why not?

The researchers then viewed, listened, and analyzed the videotapes and systematically coded the data. Upon collecting compelling and convincing data, the researchers proceeded to Phase 5: Analyzing the data and identifying patterns, themes, and meanings.

Phase 5: Analyzing the data and identifying patterns, themes, and meanings

Data collected from the video focus group, seminar assignments, and the researchers' notes were organized for analyses. To analyze the data, the researchers used a three-pronged approach to make meaning of the information that was collected as suggested by Graue and Walsh (1998). First, the researchers examined the data and determined *what was unique*? Second, they noted *what was unexpected about the data collected.* And last, they noted *what was missing in the data.*

What was unique? As a means to begin data analysis, the researchers reviewed the data collected and began identifying, categorizing, and coding the data by asking themselves, "What was unique about the data?" This exercise set the data analysis in motion. Participant responses that stood out for the researchers were:

Table 7. What was Unique in the Student Responses?

Student	Responses
1	"The KALH helped me to focus and keep me from straying."
2	"It helped to know the KALH process [and how] to use it."
3	"I need to be familiar with the KALH —it was intimidating at first."
4	"For me, I had to make it personal. I couldn't see what was happening, I had to hear it in my mind"
5	"How do I apply the information—how is it relevant to me?
6	"It helped my reflection flow."
7	"It helps me get through my day especially if something is not working—it helps me refocus."
8	"I think that the KALH can work with children if the questions were more specific and not open-ended. It can help children organize their writing."
9	"You don't always get a chance to feel."
10	"It forced me to look, see, and feel."

What was learned from the first level of data analysis is that teacher candidates struggled to be proactive as the result of the ideas gained from the use of the KALH. Teacher candidates appeared *off guard* with the idea of knowing exactly what to do about situations encountered in their field experience/student teaching due to their learned behavior of reacting to situations. What was determined was that teacher candidates using the KALH needed practice in translating their understanding, the knowing of what to do in a particular situation as the result of their reflection, and doing what they needed to do. The researchers then theorized that this dissonance occurred because teacher candidates most likely used methods to inform professional judgment versus teacher reflection on the teaching situation and its relation to methods of instruction.

Continuing to guide the journey of data analysis, the researchers followed the guiding question: *What is unexpected about the data*? Using this question positioned them to begin to look deeper into what the data was telling about teacher candidates' reflective practices. Participants' responses included:

Table 8. What Unexpected about the Data Student Responses

Student	Responses
1	"I could start anywhere. I worked backwards.
2	"I used it wrong."
3	"I am frustrated. How can I avoid being frustrated every day? The KALH has now become second nature…this is now my system for documenting student behaviors."
4	"The KALH is a tool to use as I need it. It's not necessary to use every step every time."
Student	**Responses**
5	"More steps might get me lost, and then it would just be another piece of paper that I stuff in my bag."
6	"It didn't work for me.
7	"By observing, I did not get enough information to reflect. I needed to interact with the teacher."

What was gleaned from the second level of data analysis was that teacher candidates did not have to follow the order of the KALH stages. The KALH was an organized strategy in itself. The guiding question in the third level of analysis was: *What was missing from the data?* The use of this question enabled the researchers to think critically and reflect on the data collected. Acknowledging critical reflective practices as defined earlier by Young et al. (2006), and Mezirow (2000), it was evident to the researchers that as part of the KALH process more specific examples needed to be included, such as examples related to teacher candidate's experiences and assumptions while considering the cultural dimensions of their practice and society. For example, along with a common societal assumption that a student with any disability connotes low academic performance, teacher candidates need the opportunity to reflect and transform their behavior and pedagogy around the reality that students with disabilities in fact have real gifts and talents. Therefore, in order to transform teacher candidates' behavior and pedagogy, reflection about their classroom experiences related to their own transformation must be examined more critically through the documentation process applied with the KALH process.

Discussion

The purpose of this research was to improve the quality of the teacher preparation program. Through this action research, it was identified that teacher candidates lacked in depth critical reflection as demonstrated in their reflective assignments. They lacked critically examining their experiences and assumptions while considering the cultural

dimensions of their practice and society. Knowing about this weakness, the researchers developed a reflective tool that bridged theory with practice to assist teacher candidates in the reflection process. Even though the sample size was small, it appeared (as evidenced in the teacher candidates' written reflective assignments and in the focus sessions) that the KALH did in fact scaffold teacher candidates' reflections. Teacher candidates demonstrated a more in depth understanding of curriculum development, implementation, evaluation, and instructional change via the application of the KALH and their ability to document how this understanding had occurred, especially considering critical issues around disabilities. As a by-product of this gained knowledge, which was obtained through the use of the KALH, teacher candidates voiced that their confidence had increased as a result of their critical teacher reflection. In addition, teacher candidates expressed that this confidence enabled them to exercise professional judgment that led toward appropriate and critical professional change.

Reflection by University Researchers

Improving teacher practice requires a systematic process for reflection. Action research is a powerful tool to do this. The researchers have attempted to document their reflective journey of improving teacher preparation practice and have discovered the value of action research as a tool to guide professional practice. Based on the data collected, the KALH appeared to be an effective strategy for in depth reflection. Even though the use of the KALH was considered time consuming, teacher candidates gained important and useful knowledge that informed their decisions about the development of assessments, curriculum, and instruction; ultimately, providing evidence of student learning.

By engaging in action research, the researchers have become more reflective practitioners, (Schon, 1987) particularly through the understanding that their students can provide them with the necessary information to enhance their quality of teaching. Rather than dialoguing about intuitive reasons as to why teacher candidates' work was not at the standard identified by the researchers, they implored a strategy that systematically explored those issues. As a result of their lived experiences using action research, change in their teaching practice has occurred.

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About the Authors

Dr. Elissa Poel is Associate Professor Emerita in the Department of Special Education/ Communication Disorders at New Mexico State University and served as the Director of Field Practices for Special Education. Her teaching responsibilities and research interests included teacher preparation, inclusive practices, international student teaching, specific learning disabilities, and assistive technology. Dr. Poel serves as the Co-PI of Reaching the Pinnacle (RTP), a program that recruits, mentors, and helps to retain individuals with disabilities in college/university STEM programs throughout New Mexico and far west Texas. RTP is funded by the National Science Foundation and housed in the College of

Engineering. Her mission has been and continues to be to improve the quality of life for individuals with disabilities.

Dr. Monica Brown is an Associate Professor in the Department of Special Education/ Communication Disorders at New Mexico State University. Her current research interests include disaffected adolescents, multicultural special education, technology access and use, teacher preparation at the secondary level, and secondary education. Dr. Brown teaches general special education courses as well as courses with an emphasis on secondary special education. She is a member of 5 journal editorial boards and is an Associate Editor for Diversity of *Intervention in School and Clinic*.

Dr. Loui Reyes is an Associate Dean with the Graduate School at New Mexico State University. He has a long association with the College of Education. His areas of specialization are early care and education. He received his Ph.D. degree from New Mexico State University and a Post-Doctorate in Learning Technologies. He is a recognized national expert in early childhood education.

Dr. Cristóbal Rodriguez is an Assistant Professor with the Educational Management and Development Department at New Mexico State University. He has been formerly trained in education research, evaluation, and policy analysis with a social and cultural focus. His professional experiences include various secondary and post-secondary education roles with a focus around serving and preparing diverse students for academic success. These experiences inform Cristóbal's research focus on policies throughout the educational pipeline that both improve or challenge access for students living in concentrated demographics, such as the U.S. Southwest Borderland communities.