

Dialogic Retrospection as a Metacognitive Research Tool

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ABSTRACT

The authors describe the results of teaching participants enrolled in undergraduate and graduate participants of an educational psychology taught by one of the authors. A theory into practice teaching approach was used to encourage teacher candidates to conduct a research process guided by the instructor. Participants engaged in a metacognitive, self-regulated narrative-inquiry process that allowed them to situate themselves within an educational, historical and political context. They identified and defined relevant information about what influenced them to become a teacher. The participants followed an interview protocol in pairs where they asked each other a series of questions related to their experiences. Meaningful descriptive narratives summarizing the interview results were analyzed for generative themes. Implications for teaching and research are discussed with reference to metacognitive self-regulatory practices.

This qualitative study of motivation to become teachers is contextualized in the literature on motivation. For example, factors that influence teaching as a career choice have been identified by researchers to include graduate vs. undergraduate stage of participant development (Anderson, 2001; Schutz, Crowder, & White, 2001); specialty area such as early childhood, elementary, bilingual/ESL, special education, etc. (Jones, et al., 1999); gender (DeCorse & Vogtle, 1997); race or ethnicity (Jones, Young, & Rodriguez, 1999; Friesen & Orr, 1998); and culture (Howell, 1997). Teacher beliefs, as a human endeavor embedded in cultures, can be a strong indicator of the teacher effectiveness in the classroom (Bandura, 1993; Lin & Gorrell, 2001).

In recent years, some of the most influential educational research regarding predictors of reflective teaching practices is grounded on metacognition and the self-regulated skills to monitor and change cognitive processes such as reasoning, and problem solving (Boekaerts, Pintrich & Zeidner, 2000; Cardelle-Elawar & Sanz, 2000; Metcalfe & Shimamura, 1994; Swanson, 1990; Pintrich, 2000; Schunk & Zimmerman, 2001). One critical issue in preparing educators today is to engage teacher candidates in research by using metacognitive inquiry processes that help teachers become reflective thinkers. Research findings from Riveiro, Cabanach, & Arias (2001) suggest that reflective teachers need an active sense of themselves as they set academic and motivational goals both for themselves and their pupils. Metacognitive and self-regulatory learning processes activate the teachers' questioning to think on their own by taking the opportunity to examine, analyze, and solve problems.

Other research findings indicate that a metacognitive inquiry process can guide teachers not only to learn about themselves and others but also directs them to re-examine their goals (Cardelle-Elawar, 1996; 1995, 1993; 1990; 2000; Johnson, 2002). Teachers develop alternative strategies when they realize that current strategies fail to meet the needs of their students. Teachers who engage in a metacognitive process are using three types of knowledge: declarative, strategic, and procedural

knowledge. Intentionally using an action research or inquiry process can regulate the way teachers think about themselves and their students.

The rationale for this study was derived from metacognitive theory and the principles of critical pedagogy. Self-regulation is a metacognitive construct similar to Freire (1970; 1998) concept of *conscientization*, i.e., a deep awareness of one's self in the world. Through the process of a dialogical interaction (using empowering language and providing supports for communication), people can create a mental awareness of one point of view and its opposite (i.e., a *dialectic*). This can lead to the experience of *praxis*, or a cycle of action-reflection-new action that can transform the individual's experience of the world (Diaz-Greenberg, et al., 2000; Harding, London & Safer, 2001; Nevin et al., 2002; Thousand et al., 1999).

Purpose of the Study

The authors posed the following questions to guide their inquiry:

1. How did the participants (graduate and undergraduate teachers in training) construct their views of themselves to become a teacher?
2. How did their constructed views reflect the historical, social-cultural, and educational contexts?
3. How did participants create awareness of special events that shaped their identity formation as a teacher?

METHOD

The method, data collection and analysis procedures followed a narrative inquiry process in the qualitative analysis tradition (Bogdan & Biklen, 1998; Freire, 1970; 1998). Several teacher identity studies in the field have used a similar process. For example, in studying the development of teacher identity, Friesen, Finney, and Krentz (1999) used narrative histories and theme analysis in the hermeneutic tradition. Schutz et al. (2001) and DeCorse and Vogtle (1997) conducted interviews to develop narratives while Jones et al. (1999) conducted interviews and a theme analysis to correlate sources of influence for becoming a teacher. The methodology of this study is grounded in metacognitive self-regulated theory and critical pedagogy including:

- 1) A dialogic retrospection interview process to elicit participant's voice;
- 2) Guided reflections to cue questions to elicit metacognitive knowledge and self-regulatory processes, for example monitoring progress in naming and overcoming difficulties or barriers to becoming teachers; and
- 3) Constructing written narratives that represent a phenomenological interpretation of the interviews.

Data Collection and Analysis Procedures

The participants were guided through the interview process in a step-by-step manner as shown in Table 1. The rule of confidentiality was invoked to ensure that participants would be more likely to share sensitive information. Each interview team was comprised of a listener who scribed the partner's responses to the interview questions. Each partner then independently wrote two paragraph summaries that were exchanged and edited for accuracy. Written narratives were then collected by the professor for theme analysis.

Table 1: Process to Elicit Your Teacher Voice: Guided Interviews with a Partner

<p>Confidentiality rules: Be conscientious about maintaining the trust of your interview partner.</p> <p>Partner A interviews, listens, and scribes B's answers.</p> <p>Partner B interviews, listens, and scribes A's answers.</p> <p>Each partner independently writes 2 paragraphs summarizing what has been scribed and comes to the next class prepared to read it to each other.</p> <p>Changes are then made to ensure accuracy of information.</p> <p>Each partner then chooses a pseudonym (or decides to use given name).</p> <p>Narratives are collected by Professor Cardelle-Elawar and collated into a Class Big Book titled, "Our Individual Journeys to Becoming a Teacher."</p> <p>Remember the code of ethics for a researcher: Do NOT share your partner's story with anyone. It belongs to your partner. S/he decides what part(s) of the interview to include in the two-paragraph summary.</p>
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The semi-structured interview process relied on cues or prompts to elicit the participants' voices. Participants were guided by one of the authors to question each other using the dialogical perspective model as described in Table 2. Questions reflected key findings from the extant literature on sources of motivation to become teachers.

Table 2: Interview Questions

<ol style="list-style-type: none"> 1. How old were you when you first "knew" you wanted to be a teacher? What was happening in the world, your town, your neighborhood, your family at the time? Who were your heroes or heroines? 2. Do any teachers stand out in your memory? Why? What makes them memorable? Who were your favorite teachers and why? Do you have any of their attributes? Please explain. 3. Do you have any favorite movies that portray the lives of teachers? Explain. 4. What barriers have you had to overcome to become a teacher? 5. What keeps you motivated to achieve your goal to become a teacher?

Questions included age at which participants first knew they wanted to be teachers, heroes or heroines, events that occurred at that time, memorable teachers, the extent to which participants had attributes similar to their memorable teachers, favorite movies that portray the lives of teachers, barriers to becoming a teacher, and identification of what motivates participants to achieve the goal to become a teacher. The questions were posed as examples rather than as a script; thus there was a degree of self-selection for the specific questions that would be emphasized during the partner interviews and, subsequently, which items would be selected to summarize in the two-paragraph narratives.

The interview guide served three purposes. First, it was an advance organizer intended to focus participants' attention during the interview. Second, the guide served as a strategy to check participants' understanding of their own and each other's unique life experiences as they compared their responses with their partner's responses. Third, it helped participants to self-regulate their own awareness processes. In accordance with modeling responsible research procedures, the authors complied with the university's human subjects review board protocol to ensure confidentiality. Participants were encouraged to select pseudonyms or to use their given names if desired in order to protect anonymity.

The authors used an iterative, recursive, and constant-comparison process to analyze the data. The major source of data is the individual biography of each participant; a secondary source is professor debriefing of participants' reactions in conducting the action research. The verbatim written responses to the interviews were collated and analyzed for generative themes across all participants for each of the three research questions. The resulting themes were correlated with findings from the literature and the extent to which the themes helped to address the three research questions.

Description of Participants

A total of 98 participants' narratives comprised the data for the theme analysis: 82 (84%) undergraduates and 16 (16%) graduates. The participants of this study included 12% males and 88% females and comprised a convenience sample of all enrollees in four educational psychology classes (three undergraduate, one graduate) during fall semester of 2002: 21% of the participants were graduate students and 79% were undergraduates. Participants were seeking various endorsements and certifications from the state's department of education, including early childhood education, elementary education, middle school, secondary education, English as a second language, special education, and bilingual education. Eighty-eight percent of the participants reported their race and ethnicity. Of those who reported, 70% were White (Anglo), 17% Hispanic, 4% African-American, and 9% other (such as Asian, Native American). All participants qualified for entrance into the pre-professional or graduate teacher preparation programs and ranged in age from 19 to 52 with a mean of 32 years. Within their narratives, participants reported the ages at which they decided to become teachers: 22% reported being in elementary school (ages 5-10); 33% reported being in high school (ages 14-19); 14% reported being young adults (ages 20-30); and 22% reported being adults (ages 31-45). Only 9% did not specify an age.

ASUW Context and Course Content

The College of Education is one of four colleges at Arizona State University West (ASUW) established in 1982 and accredited by the North Central Association of Colleges and Schools. The College of Education is located in a metropolitan and multicultural area of northwest Phoenix. The college mission is to prepare educators who can meet the challenge of teaching an increasingly diverse population of K-12 students in the metropolitan area. The college student body represents a culturally and ethnically diverse population (approximately 70% Anglo, 25% Hispanic, 4% African American, and 1% other).

The educational psychology course in which participants of this study were enrolled was a required class for all education majors. The major goal of the course was to contribute to the shaping of a professional identity as a teacher who must face the challenges of teaching pupils with diverse needs such as socio-economic status, gender, race, ethnicity, linguistic competence, cognitive, and developmental stages. Their professor (one of the authors) modeled the research methods often used by educational psychologists when they are translating various motivational theories of learning and motivation (e.g., humanistic, cognitive, and social learning theories) into classroom

practice. To develop the knowledge base described in the textbook (Schunk & Zimmerman, 2001), the professor encouraged participants to learn different motivation theories through inquiry or other self-regulatory approaches such as the dialogic retrospection process described previously. The written narratives were an ungraded assignment. However, to ensure accuracy of the interview process, participants validated their interview results during class discussions. One of the authors listened to course participants as they critiqued the dialogic retrospection process. Participants valued how the interviews helped in personalizing and contextualizing their own experience in regard to their own motivation to become teachers. The narratives apparently helped them construct a more personally meaningful understanding of the theoretical concepts they were metacognitively learning about in the course. In their end-of-semester evaluations of the professor's instruction, many participants (anonymously) wrote how the interactive dialogic process increased their awareness of the relevance of accurately reporting each other's ideas.

Roles of Lecturer and Researcher

Both lecturers conceptualized the study and completed the literature review. The second author taught the classes and collected the narratives; the first author independently read and analyzed the narratives. Using a dialogic process, both professors agreed on the coding to be used to identify themes.

RESULTS

From the constant-comparative analysis of the narratives, six themes emerged. The themes are displayed in relation to the research questions that were posed for this study. Randomly selected verbatim quotes from the narratives are reproduced in order to show the rich descriptive texts that confirmed and disconfirmed the theme. The apparently conflicting views is thus a result to be expected when engaging in a dialectical process wherein two different views of the same event can be experienced.

Research Question 1

Three themes emerged that seemed to be related to the first research question, How did participants construct their views of themselves as teachers? These themes are explained by representative verbatim quotations from the narratives of randomly selected participants.

Theme 1a: Participants clearly articulated the influence of former teachers as a source of their motivation to become teachers. Excerpts from narratives that confirm this theme include:

Rose, a child who frequently moved schools because her family was migrating to various farms in a region, wanted to become a teacher since she was 10 years old because of a 4th grade teacher who "had a hands-on approach to teaching which made the class interesting and fun." This is in direct contrast to a kindergarten teacher who "never let [me] tell [my] side of the story" and who "made [me] sit in a corner separated from the rest of the class."

Stacy, an African-American, remembers her 3rd grade teacher who accused her of calling another student "nigger" and then asked her not to use this word because "you are a nigger, too!" Stacy remembers a favorite 7th grade science teacher who always included "experiments in the lessons." And a 10th grade geometry teacher who modified the lessons so that "all the students in the classroom were successful."

Paco, whose parents emigrated to the United States to bring him a better life, remembers a teacher who "instilled the love of reading by providing a literature-rich, non-threatening

environment who taught [me] the magic that books possess.” Another teacher is remembered for “compassion, patience, and kindness—characteristics she displayed with

Table 3: Themes Emerging from the Narratives in Relation to Research Questions

Research Questions	Themes
1. How did the participants (graduate and undergraduate teachers in training) construct their views of themselves to become a teacher?	<p>Theme 1a: Participants clearly articulated the influence of former teachers as a source of their motivation to become teachers.</p> <p>Theme 1b: Commitment to pupils was frequently named as a source of motivation to become a teacher.</p> <p>Theme 1c: Participants who were teaching reported deeper understanding (conscientization) of their motivation to become teachers.</p>
2. How did their constructed views reflect the historical, social-cultural, educational contexts?	<p>Theme 2: Personal contexts were emphasized rather than the social –cultural- political context of when writers first ‘knew’ they wanted to be teachers.</p>
3. How did participants create awareness of special events that shaped their identity formation as a teacher?	<p>Theme 3a: Naming a movie about teachers seemed to be a powerful imaging process—the majority of the participants named at least one movie.</p> <p>Theme 3b: Participants showed self-determination and self-conscious awareness of their struggles to overcome barriers on their journeys to becoming teachers.</p>

[my] Spanish-speaking father—which has made a tremendous impact on [my] interest with English language learners.”

Lauren decided to become a teacher around 18 years of age. “What inspired [me] were the good and also bad ones [I] had throughout high school. A teacher who stands out ... is [my] freshman English teacher who was very witty which [I] had never seen in an English teacher..... Another teacher who stands out is [my] junior year English teacher ... a beastly woman who made [me] write a lot, but in retrospect, [I] am thankful for the skills and practice that were given.”

One of the few excerpts from narrative that disconfirms this theme includes:

Dina remarked, “While [I] was in school, [I] really didn’t have any teachers that really stood out. [I] went to a catholic school so they were really strict so you really didn’t get close to any teachers.”

Theme 1b: Commitment to pupils was frequently named as a source of motivation to become a teacher. Excerpts from narratives that confirm this theme include:

Dana wrote, “I have always helped my community and have a need to continue helping children reach their potential.”

Johnna wrote that what keeps her motivated is “when [I] see the spark in a student’s eye when they understand something.”

Jen emphasized that “I feel that teachers today more than ever have a real concern for community and hope to make all their students welcome, to let them know that race, color and religion should not be the basis for indifference. I hope there [will be] less hate in future generations.”

An excerpt from the few narratives that disconfirms this theme includes:

Justin “picked teaching due to the long summer breaks so [I] can travel abroad.”

Theme 1c: Participants who were teaching reported a deeper understanding (conscientization) of their motivation to become teachers.

In analyzing the narratives of the graduate-level participants, 14 were teaching in K-12 classrooms. Of those 14 narratives, one did not mention implicitly or explicitly any increased awareness whereas 13 (93%) did. Verbatim representative excerpts from the narratives that confirm this theme include:

Panthea wrote, “I now find myself using my sense of humor with my students (in my art classes) and being there for them to talk about their lives as my first grade teacher did for me. Mrs. W. appreciated how my art reflected my Navajo culture and thought I was a great artist. I am continually motivated by the chance I have each day to make a difference in my student’s lives.

Gambler explained, “I follow the example of my 3rd grade teacher who had a soft-spoken voice and hugged each student every day. I do not raise my voice in my classroom. I keep motivated to achieve my goals as a teacher by continuing to take classes in education.

Paco mentioned, “[One] teacher’s compassion, patience, and kindness in speaking to my Spanish-speaking father made a tremendous impact on my interest with ELL students and strong belief in bilingual education.

DRW wrote, “I am now a teacher who never gives my students a reason to fear failures, a lesson a learned from one of my high school teachers.

Research Question 2:

How did participants’ construct views reflect historical, social-cultural, and educational contexts? One theme emerged that seemed to be related the second research question.

Theme #2: Personal contexts were emphasized rather than the social –cultural- political context of when writers first ‘knew’ they wanted to be teachers. To illustrate, representative verbatim quotes from participants are described below to allow the voices of prospective teachers to be heard. Excerpts from narratives that confirm this theme include:

Amanda was planning her career as a physical therapist but changed her mind during her second year of college to become a teacher. She had been “working with teenage girls for about a year and one day it just hit [me] that [I] wanted to be a teacher.”

Esperanza was working in a plastic surgeon's office when she discovered that she wanted to become a teacher.

Rebecca first knew that she wanted to be a teacher when she was in the third grade. She had the most wonderful teacher that year. Rebecca used to say that when she grew up she wanted to be "like her mom and [a favorite teacher]".

Excerpts from narratives that disconfirm this theme include participants who wrote about the historical or social and political events at the time of their decisions that seemed incidental rather than influential in their career choices.

Jolene, as an adolescent, "played school during summer breaks with neighborhood children and [my] sisters. Although [I] don't really remember being aware of many events in the bigger world, [I] remember writing a reaction essay to the assassination of President Kennedy, fear of bombing from USSR, and designated bomb shelters."

Cathy wrote, "When I was a child, I had a desire to become a teacher. Somehow, I managed to move away from that goal, as I grew older. However, when the incident at Columbine High School occurred a few years ago, it stirred up feelings and desires to return to the career path I am now on."

Research Question #3

Two themes emerged that seemed to be related the third research question: How did participants create awareness of special events that shaped their identity formation as a teacher?

Theme #3a: Naming a movie about teachers seemed to be a powerful imaging process—the majority of the participants named at least one movie, an example of social learning through imitation and modeling. To illustrate, representative verbatim quotes from participants are described below to allow the voices of prospective teachers to be heard. Excerpts from narratives that confirm this theme include:

Amanda with no hesitation answered *Stand and Deliver*. "The teacher in the movie never gave upon his expectations of his students because he believed that they could do it."

Esperanza has two favorite movies that portray the lives of teachers: *Lean on Me* "is about a principal who cares for and is dedicated to the students. The students look up to and respect the principal and *Stand and Deliver* is about a math teacher who vows to teach underachieving minority students calculus. The students are then accused of cheating on a test because they are minorities."

A favorite movie for Bobbie portraying the life of a teacher is the *Dead Poet's Society*. "It was the way the teacher in the movie motivated the children, how he made learning fun and how he got them involved that made it [my] favorite."

Participants across all four sections were consistent in naming the most frequently mentioned movies: *Stand and Deliver*, *Mr. Holland's Opus*, *Dangerous Minds*, and *Dead Poets Society*. The next most frequently named movies were not distributed across all four sections (*To Sir, with Love*; *Pay It Forward*; *Music of the Heart*) and the remaining movies were mentioned once (*Anne of Green Gables*, *The Miracle Worker*, *October Sky*, *Indiana Jones*, *Higher Learning*, *Legally Blonde*, *Star Wars*, *The Man Without a Face*, *The Rookie*). It should be noted that not all narratives included a mention of a movie. In each section, participants could choose to respond to selected questions. No movies were mentioned by 18% of the participants whose narratives were available at the time

of this analysis. Whether or not a person named a movie seemed not to be associated with race, ethnicity, age, or gender.

Only one participant mentioned a movie, *The Breakfast Club*, as a negative example. Paco (a participant in the graduate section of the course) appreciated this movie because it provides “a sharp contrast to [my] ideals...In this film, actors portrayed certain traits that some teachers actually possess, offensive to the profession, that educators are in the field of education for the [presumed] power they think they have over the students.”

Three participants named television series (*Chronicles of Narnia*, *The Magic School Bus*, and *Boston Public*). For example, Rebecca wrote that she “relates to this show [*Boston Public*]...problems that [I] had in high school now show up in middle and elementary schools. [This show shows] that teachers should be prepared to handle any problem that may arise.”

Excerpts from the few narratives that disconfirm this theme include the 18% of participants who did not mention movies at all.

Xochitl did not “recall any movies that influenced [me] to become a teacher.”

Paola was “raised in an environment where only Spanish was spoken. [I] moved to the United States in the 4th grade; it was a battle until 7th grade to learn English.”

Theme #3b: Participants showed self-determination and self-conscious awareness of their struggles to overcome barriers on their journeys to becoming teachers. The most frequently named barriers were financial difficulties, changes in marital status, and births of children. For example, listen to Cathy’s words, “One such barrier is financial. Trying to pay for tuition and still have time to focus on studies is a difficult balance.” Excerpts from other narratives that confirm this theme include:

Jill “found herself dealing with a difficult situation...going through a divorce. This meant finding a career and becoming a single parent.”

Tamara, a wife and mother, wrote, “Being a minority and first generation to attend college has been a challenge, besides the usual husband and kids which are always challenging. Coming back to school after two years has been hard to get back into the swing of things to balance the roles of student, parent, and work.”

Cathy wrote, “I have faced a few small barriers in achieving my goals. [One] barrier I have had to face is the sexism from the 1970s. In those days, women were told that they shouldn’t strive to be all they can be and do what they want to do, because women do other traditional things, like have babies. [I learned] that learning science and math were not skills needed by women.”

Hector has overcome “many barriers...[such as] the fear of failing... .” Similarly, Bobbie said the barrier to overcome is her “own self-doubt...to believe that [I] can do this though [I] am an older student.”

Danielle referred to having to overcome her depression that came “from the three family deaths that took place in the past year, most recently [my] older brother whom [I] lost to a car accident caused by a drunk driver. ... [I] won’t let anything stand in [my] way when it comes to preparing to become the best teacher.”

DISCUSSION

What is important about this approach to study motivation to become teachers? Preservice and inservice teachers used a dialogic retrospection process to identify and define their motivation(s) to be a teacher at this point in time. The result of this mutual questioning process was that participants acquired a self-regulation process that increased their own awareness of why they wanted to become teachers. It seems clear from the narratives that participants could construct their views of becoming a teacher from the perspective of different age levels, life challenges, and cultural contexts. Moreover, their positive as well as negative experiences with former teachers seemed to strengthen their self-determination in selecting teaching as a career. Although most participants did not situate themselves within an historical or political context, those who did seemed to refer to the events in an almost incidental manner. The reference to movies that portray teachers could be one indicator of how the participants situated themselves in the popular cultural context in which they had made the decision to become a teacher. Or alternatively, the participants could have experienced increased empathy and thus increased identification with the teachers' role.

Moran et al. (2001) report on the relationship of motivational factors and the implications for recruitment into the teaching profession. It may be noteworthy that nearly 30% of the participants in this study reported they became motivated to become teachers while in elementary school. One implication is that recruitment into universities and colleges of education might begin earlier than at the high school level.

Furthermore, there were no apparent differences between narratives from males and females with respect to commitment to pupils as a source of motivation. Similarly, DeCorse and Vogtle (1997) found that the most commonly cited reason for elementary teaching was "direct contact with and nurturing of children" reported during in-depth semi-structured interviews by males enrolled in an elementary preservice program at a California liberal arts college. In fact, that both males and females cite commitment to children as a motivational source may be the most robust outcome of the study in terms of resonance with the international literature. Johnston et al. (2001) studied factors influencing primary teacher trainees at Queen's University in Belfast, Ireland. Male and female trainees agreed on four most influential factors such as "working with children, job satisfaction, contribution to society, and imparting knowledge" (p. 57). Yong (1995) conducted a survey of 146 females and 28 males enrolled in teacher training at the University of Brunei Darussalam. Their motives for entering the teaching profession included "influences of others" and "working with children" (p. 277).

The themes taken as a whole can inform the predominantly quantitative literature on motivation to choose teaching as a career. Intentional goal orientation is one area of motivation that has been studied by Schutz, Crowder, and White (2001), Boekaerts, et al. (2000) and Pintrich (2000). The selection of a teaching career as an intentional goal has been supported by the phenomenon of social learning theory (Bandura, 1993; Schunk & Zimmerman, 2001). As suggested by several of the themes that emerged from the narratives, the participants in this study similarly showed intentional goal orientation by virtue of their descriptions of the ages at which they first knew they wanted to be teachers and the barriers that they had to overcome.

Moreover, in this study, as shown in Theme 1a, participants clearly articulated the influence of former teachers as a source of their motivation to become teachers. In their narratives, both inservice and preservice teachers reported their admiration for compassionate caring in addition to

intellectual excellence of their teacher models. Many narratives referred to their most memorable teachers' ability to motivate them similar to results reported by other researchers (e.g., Schutz et al, 2001; Whitbeck, 2000). The theme related to personal contexts rather than cultural-political events may be situational to this study. But there seems to be some comparability of this result with a completely different population: the rural Oaxacan women whose narratives were analyzed by Howell (1997) reported important reasons to select teaching as personal "political beliefs" (p. 265).

The theme related to increased *conscientization* or a deeper awareness of how their motivation to be teachers plays out in their teaching is particularly noteworthy. In this study, changes in *conscientization* or awareness of one's self as a teacher that participants might report as a result of engaging in the research process were considered a form of metacognitive praxis. A major implication of the study may lie in the potential for professors of educational psychology as well as professors in teacher education programs to appreciate the depth of metacognitive commitment involved in becoming teachers. A model for understanding how the dialogic retrospection interview process employed in this study might lead to metacognitive change is derived from the I.D.E.A. Model (Identify—Define-Execute-Assess) described by Cardelle-Elawar and colleagues (2000) in relation to teachers' motivations to work with ethnic minority children.

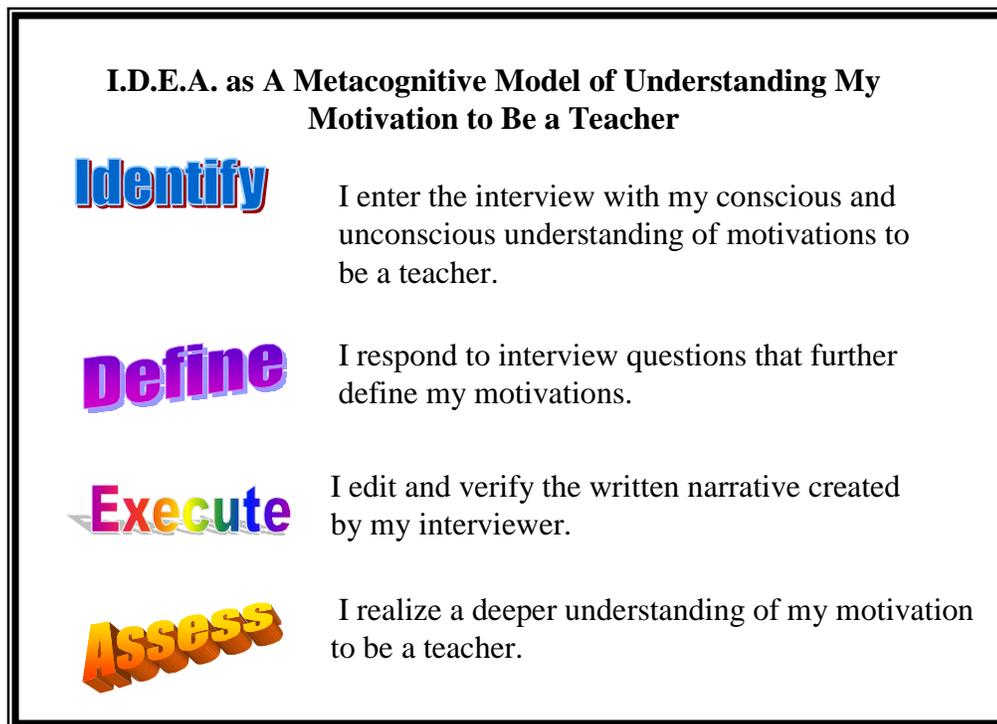


Figure 1: An Emerging Model*

*Adapted by the author from Cardelle-Elawar, M. (2000). Teacher motivational understanding in how to teach ethnic minority students. *Educating Able Children*, 4(2), 41-51

The dialogic retrospection process required that, as they entered into the interview exchange, they each identified a level of awareness of the motivational factors that brought them to choose the teaching profession. Second, as they responded to the interview questions, their level of conscientization was increased because they had to describe and define the events, situations, and people who influenced their career choice. Third, by editing the narratives, the participants had to execute their judgment processes to validate their stories. Finally, by assessing the narratives, the participants recognized a deeper understanding of the sources of motivation to become a teacher. In short, the I.D.E.A. model can lead participants gradually towards *conscientization* by helping them to focus more on the processes involved in being reflective thinkers.

Hopefully, this qualitative analysis of the phenomenological narratives of preservice and inservice teachers concerning their motivations to become teachers and the dialogic retrospection interview process itself can be helpful in understanding more thoroughly the quantitative studies on motivation. Overall, the results of this study should be interpreted in such a way that opens up the preparation of prospective teachers. The outcome of the theme analysis indicates the important role of professors to elicit the voices of prospective teacher candidates. When professors of educational psychology or education classes use instructional processes that elicit voices and then take action on the voices, a foundation is established for prospective teachers to see how knowledge is constructed within the individual as well as how uniquely each individual filters information and interprets the results.

The dialogic retrospection process used in this study apparently allowed the participants to become aware of not only their beliefs and feelings about becoming teachers but the sources of their motivations. Rose (1989) describes the analogy of the lens of a camera whereby there is a standard lens through which teachers see their world. In order to redefine classroom realities, teachers must be taught to re-focus that lens or change it:

[T]o reach the full sweep of our citizenry, we need to question received perception, shift continually from the standard lens. Encourage [ourselves] to sit close by as people use language and consider, as we listen to the orientations that limit our field of vision. (Rose, 1989)

As a result of engaging in an interactive inquiry process, the prospective teachers in this study learned to monitor and personalize their own interactions. Moreover, the dialogical processes of this study exemplify an interpretive introspective method that shows prospective teachers what it might mean to learn from oneself as well as how to learn about oneself by learning from others. The prospective teachers of this study seemed empowered to value and respect how contextual issues affected their own and their colleagues' motivations to become teachers. By inference, this experience may influence how they might interact with pupils from different backgrounds, ethnicities or gender and different stages of development, thereby expanding their fields of vision.

REFERENCES

- Anderson, A. (2001). In the process. The Clearing House, 74(5), 285-6.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. Educational Psychologist, 28, 117-148.
- Bogdan, R., & Biklen, S. (1998). Qualitative research for education: An introduction to theory and methods. Boston, MA: Allyn & Bacon.
- Boekaerts, M. Pintrich, P., & Zeidner, M. (2000). (Eds.). Handbook of self-regulation. San Diego, CA; Academic Press.
- Cardelle-Elawar, M. (1996). A self-regulated teaching approach to improve minority students' self-esteem in a multicultural classroom environment. Bilingual Review, 26, (3), 17-25.
- Cardelle-Elawar, M. (1995). Effects of metacognitive instruction on low achievers in mathematics problems. Teacher and Teacher Education, 6, 81-95.
- Cardelle-Elawar, M. (1990). Effects of feedback tailored to bilingual students' mathematics needs on verbal problem solving. The Elementary School Journal, 3, 3-34.
- Cardelle-Elawar, M., & Nevin, A. (2002). Proposal to study undergraduate and graduate students' professional identity. Tempe, AZ: University Human Subjects Review Board, Arizona State University.
- Cardelle-Elawar, M., & Sanz, M. (2000). Teacher motivational understanding on how to teach ethnic minority students. Educating Able Children, 4(2), 41-51.
- DeCorse, C. J. Benton; & Vogtle, S. P. (1997). In a complex voice: The contradictions of male elementary teachers' career choice and professional identity. Journal of Teacher Education, 48(1), 37-46.
- Diaz-Greenberg, R., Thousand, J., Cardelle-Elawar, M., & Nevin, A. (2000). What teachers need to know about the struggle for self-determination (conscientization) and self-regulation: Adults with disabilities speak about their education experiences. Teaching and Teacher Education, 837-847.
- Freire, P. (1970). Pedagogy of the oppressed. NY: Seabury.
- Freire, P. (1998). First letter: Reading the world/Reading the word. In Teachers as cultural workers: Letters to those who dare to teach (pp. 17-28). Boulder, CO: Westview Press.
- Friesen, D. W., Finney, S., & Krentz, C. (1999). Together against all odds: towards understanding the identities of teachers of at risk students. Journal of Teacher Education, 15, 923-932.
- Friesen, D. W., & Orr, J. (1998). New paths, old ways: Exploring the places of influence on the role of identity. Canadian Journal of Native Education, 22(8), 188-200.
- Harding, C., London, L., Safer, L. (2001). Teaching other people's ideas to other people's children: Integrating messages from education, psychology, and critical pedagogy. Urban Education, 36(4), 505-517.
- Howell, J. (1997). "This Job is Harder than it Looks": Rural Oaxacan women explain why they became teachers. Anthropology and Education Quarterly, 28(2), 251-79.
- Johnson, G.C. (2002). Using visual narrative and post-structuralism to read a student teacher's professional practice. Teaching and Teacher Education, 18, 387-404.
- Johnston, J., McKeown, E., & McEwen, A. 1999). Choosing primary teaching as a career: The perspectives of males and females in training. Journal of Education for Teaching, 25(1), 55-64.
- Jones, E. B., Young, R., & Rodriguez, J. L. (1999). Identity and career choice among Mexican American and Euro-American preservice bilingual teachers. Hispanic Journal of Behavioral Sciences, 21(4), 431-446.
- Lin, H. L., & Gorrell, J. (2001). Exploratory analysis of preservice teacher efficacy in Taiwan. Teaching and Teacher Education, 17 (5), 623-635.
- Metcalfe, J., & Shinamura, A.P. (Eds.). (1994). Metacognition: Knowledge about knowing. Cambridge, MA: MIT Press.
- Moran, A., Kilpatrick, R. Abbott, L., Dallat, J., & McClune, B. (2001). Training to teach: Motivating factors and implications for recruitment. Evaluation and Research in Education, 15(1), 17-32.

- Nevin, A., Cardelle-Elawar, M., Beckett, C., Thousand, J., & Diaz-Greenberg, R. (2002). Eliciting and taking action on the voices of adults with disabilities: Advice for teacher education professors. Journal of Professional Studies, 9(2), 70-79.
- Pintrich, P. R. (2000). Issues in self-regulation theory and research. Journal-of Mind-and Behavior, 21, (1-2); 213-219.
- Riveiro, J. M., Cabanach, R. G., & Arias, A. V. (2001). Multiple-goal pursuit and its relation to cognitive, self-regulatory, and motivational strategies. British Journal of Educational Psychology, 71(4), 561-572.
- Rose, M. (1989). Lives on the boundary. NY: Penguin.
- Schunk, D. H. & Zimmerman, B. J. (Ed.), (2001). Self-regulated learning and academic achievement: Theoretical perspectives (2nd Ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Schutz, P. A., Crowder, K. C., & White, V. E. (2001). The development of a goal to become a teacher. Journal of Educational Psychology, 93(2), 299-308.
- Swanson, H. L. (1990). The influence of metacognitive knowledge and aptitude on problem solving. Journal of Educational Psychology, 82, 306-314.
- Thousand, J., Diaz-Greenberg, R., Nevin, A., Cardelle-Elawar, M., Beckett, E. C., & Reese, R. (1999). Perspectives on a Freirean critical pedagogy approach to inclusion. Remedial and Special Education, 5-8.
- Yong, Bob Chui Seng. (1995). Teacher trainees' motives for entering into a teaching career in Brunei Darussalam. Teaching and Teacher Education, 11(3), 275-280.

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