"I ALSO WANT THEM TO FEEL COMFORTABLE": AFFECT AND THE FORMATION OF PROFESSIONAL IDENTITY

Carlos Nicolas Gomez, AnnaMarie Conner

University of Georgia

Understanding the formation of the professional identities of prospective teachers is important to better understand the decision-making processes of future teachers. Through an exploration of four prospective teachers' visions of practice and designated identities, we found that their images of future students' affective responses while learning mathematics were a strong influence in the prospective teachers' evolving professional identities.

BACKGROUND

A teacher's professional identity is the framework he or she uses to make sense of and understand problems that arise in practice (Peressini, Borko, Romagnano, Knuth, & Willis, 2004). A prospective teacher's professional identity (a conceptualization of self-as-teacher) evolves during his or her teacher education. "Preparation programs deliberately and inadvertently reinforce the development of different kinds of teaching identities as they emphasize various aspects of what it means to be a teacher" (Hammerness, Darling-Hammond, & Bransford, 2005, p. 382). These evolving conceptualizations directly influence what prospective teachers learn in their educational experiences (Peressini et al., 2004). Furthermore, this process is fraught with emotion (Brown, 2008), and internal tensions surface as the individual begins transitioning from student to teacher (Pillen, Den Brok, & Beijaard, 2013). Nevertheless, little research focusing on the formation of beginning prospective teachers' professional identities has occurred (Friesen & Besley, 2013).

Professional identity has been considered through various lenses and has been operationalized and defined in many ways (Beijaard, Meijer, & Verloop, 2004). Sugrue (1997) defined professional identity as a discourse that is continuously being rewritten by the individual. These discourses are influenced by the individual's background, including immediate family and one's own lay theories of identity formation. Others have focused on a more narrative or storied aspect to professional identity (Lutovac & Kaasila, 2011) by honing in on the manner in which prospective teachers discuss themselves as the protagonists of their stories. On the other hand, some have concentrated on developing activities and tasks for teacher educators to have students reflect on their own formation of self-as-teacher and recognize their future selves as gatekeepers (de Freitas, 2004). Regardless, researchers have proposed that identity formation involves complex multifaceted structures that are perpetually being built, deconstructed, and reconstructed (Flores & Day, 2006).

^{2014.} In Oesterle, S., Liljedahl, P., Nicol, C., & Allan, D. (Eds.) Proceedings of the Joint Meeting 3 - 177 of PME 38 and PME-NA 36,Vol. 3, pp. 177-184. Vancouver, Canada: PME.

A deeper understanding of prospective teachers' formation of professional identity is needed to prevent internal tensions (Pillen et al., 2013) and to develop ways to aid preservice teachers in seeing the interconnectedness between their past and future contexts (Flores & Day, 2006). This study focused on the identity formation of four prospective secondary mathematics teachers during their first year in their teacher education program. Our guiding questions were: (a) What characterizes participants' professional identities during their mathematics education coursework and (b) what are participants' goals and values?

FRAMEWORK

The prospective teachers in this study desired to join a community of educators and to be seen as teachers by others. Because the prospective teachers are situated within multiple communities, a situative perspective on the formation of identity was used throughout this research. From this perspective, professional identity, or the conceptualization of self-as-teacher, is constructed of both cognitive aspects and sociocultural aspects (Peressini et al., 2004). The cognitive aspect of one's professional identity is a "complex constellation of goals, values, commitments, knowledge, beliefs, and other personal characteristics, drawn together to create a sense of 'who I am' as a teacher" (Peressini et al., 2004, p. 79). An important cognitive component not mentioned specifically by Peressini and colleagues is affect. It has been argued that the affective domain, specifically the emotions of the individual, is an important catalyst in the formation of professional identity (Brown, 2008). Affect is the constellation of emotions, attitudes, and beliefs that is connected to an object or event (McLeod, 1992). Hannula (2002) argues that emotions and cognition are, "two sides of the same coin" (p. 27) and splitting the two is done purely for analytic purposes. Two other constructs allowed us to do this: Sfard and Prusak's (2005) construct of designated identity and Hammerness' (2001) concept of vision. Both of these constructs are built on the desires of the individual.

To Sfard and Prusak (2005), identity formation is a part of one's communicative practices, and this discourse aids one in making sense of his or her world; allowing one to plan for the future. These narrations that express a desirable and expected future self are called *designated identities* (Sfard & Prusak, 2005). Accordingly, "they can be recognized by their use of the future tense or of words that express wish, commitment, obligation, or necessity, such as *should, ought, have to, must, want, can, cannot*, and so forth" (Sfard & Prusak, 2005, p. 18). To better understand prospective teachers' formation of professional identities at the beginning of their preparation program, a focus on the way they expressed their designated identities was central to our investigation. Hammerness' (2001) concept of teacher vision helped in looking deeper into the prospective teachers' desires in their narratives of future-self. Vision consists of the "images of what teachers hope *could be* or *might be* in their classrooms, their schools, their community and, in some cases, even society" (Hammerness, 2001, p. 145, emphasis in original). Hammerness' perspective on vision is different than that of professional vision introduced by Goodwin (1994), which focused on how

3 - 178

professionals interpret their current context. Vision is not only how one sees him or herself in the future, but also focuses on the larger social structures to which he or she wishes to belong. What type of school do they wish to work at? What connections do they see between their classroom and the larger community the school exists within? These desires are outside the scope of designated identity. To attain a deeper understanding of one's professional identity, we found it necessary not only to explore who he or she wants to be in the future but also where he or she wants to be in future. Overall, designated identity and vision helped us focus on the ideals that are guiding the participants in their program.

Peressini et al. (2004) also described professional identity to involve a sociocultural aspect, which involves, "the ways in which teachers participate in the activities of their professional communities and present themselves to others in the context of professional relationships" (p. 79-80). We found the use of positioning theory to be useful to explore the sociocultural aspect. We see the prospective teachers to be in the process of finding their place within the community of educators. This means that within their narratives they are also discussing their inclusion within a community of which they desire to be a part. Freeman (2010) claims that how people position themselves reveals how they see themselves, and their understanding of self and others in the communities of practice that they are attempting to enter helps us in understanding the events that influence their vision and designated identity.

METHODOLOGY

This report is a part of a larger study in which we followed sixteen prospective secondary teachers through their mathematics education program. For this study, we purposefully selected four participants, two males and two females. Alex and Melissa were selected for their descriptive narratives and a deeply reflective account shared at the end of the third interview. Two other participants, Jason and Jill, were selected because a previous preliminary analysis of their beliefs showed that they seemed to differ from Alex and Melissa in their stance about teaching.

Data collection for this study included three video-recorded semi-structured interviews (between 45 and 90 minutes) throughout their first year in the program. The first interview occurred within the first two weeks of entering the program, the second at the end of the first semester, and the third at the end of their second semester. Each interview was transcribed by a member of the research team and checked by another member to verify accuracy. Additionally, observation notes were taken during the participants' field experiences. During the first semester, the participants were enrolled in a course that focused on student thinking and, as part of an associated field experience, worked for nine weeks, once each week, one-on-one with high school students in remedial, on-track, and advanced classes. During the second semester, participants were enrolled in a course that focused on student that focused on equity and assessment;

participants' field component was focused on small groups in a middle school setting for eight weeks. All artefacts the participants produced were collected.

The interviews were the main source of analysis. Using a constant comparative approach (Glaser & Strauss, 1967), we began by coding participants' narratives for cognitive aspects and sociocultural aspects by following the framework above. Concepts were found for each aspect followed by categorization of emerging themes. Observation notes and artefacts were used as supplementary sources of data for confirming or disconfirming evidence.

RESULTS

During the second and third interviews, we asked whether the participants felt like teachers during their field experiences, which were set up to enculturate them into the practices of being a teacher. Our participants claimed not to feel like teachers during most of their field experiences, but they felt like teachers if the students positioned them as such. Jill's statement is representative: "Some of the students I feel like kind of not push me away, but like kind of like brush me off, sort of. Like they were just, they kind of, like, had the attitude, 'well you're not the teacher'" (Jill, Int. 3). Experiences like this led Melissa and Alex to see ability to discipline students as a way to be viewed more as a teacher. However, they were confused and conflicted as to where this authority to discipline should come from. Consequently, they both sought out their methods professor (their figure of authority) to position them as disciplinarians, although there is no evidence that they acted upon this new position. On the other hand, Jill and Jason did not seek out ways to discipline but instead focused more on how the students reacted to their aid. Jason thought of preparation as key:

So, when I'm prepared, when we have this assignment ahead of time, we're able to see it and know what the solutions are, different approaches to the solutions. I think students can see that we're prepared, and they treat us more as teachers. (Jason, Int. 3)

Jill focused more on how she perceived if students were successful in learning:

I really did feel like the teacher, because I was sitting there helping them get to the answer and when they finally got it, they were like 'Oh!' and I was like 'huh, I actually helped' you know. So in those ways, yeah, I did feel like a teacher. (Jill, Int. 3)

The ways that students positioned them were more important to the prospective teachers' professional identities than what other authority figures (such as the methods instructor and classroom teacher) claimed; the participants accepted the students' positioning in interpreting whether or not they were or felt like teachers.

One of the more surprising themes arising from our data was the extent to which participants were attuned to their future students' affect while doing mathematics in describing their future actions and values as teachers. Many of the prospective teachers' intended actions were motivated by their perceptions of how students might react or feel. Jason, Jill, Melissa, and Alex discussed desired feelings that students should have when working on mathematics (or when participating in a mathematics class). This was a major theme that was prominent in every interview. However, each one described these affective responses differently. Even though each one focused on different affective reactions, they talked more about students' affect than they did about other possible motivating factors when describing rationale for their actions.

All four of the participants believe that students need to feel comfortable in their classrooms. This feeling of comfort was a main theme of their interviews, but it was interpreted differently by each of the prospective teachers, and consequently it provoked different intentions with respect to teacher actions. The participants' initial concepts of what it means to be a good teacher were almost exclusively dependent on their views of students' affect when doing mathematics, as perhaps should not be surprising given that their experiences in classrooms up to this point were almost exclusively as students. However, as the participants' professional identities evolved, and they incorporated ideas from their field experiences and pedagogy courses into their visions of themselves as teachers, the theme of concern for how students feel while doing mathematics remained strong. Even though in course assignments and discussions the prospective teachers spoke fluently about appropriate teaching behaviours and rationales for these behaviours, when asked about good teaching or themselves as teachers in the interviews, the participants invariably referred to student affect as the rationale for what they intended to do as teachers.

Melissa desired her students to feel welcome, to feel free to say anything in her classroom. She wanted them to feel like math is applicable so that they would be interested in learning math. But most of all she wanted students to feel challenged but not frustrated. Correspondingly, she wanted to push students, but also to balance challenging students with making sure every student understands the mathematics. Her key description of a good teacher was one who was encouraging and was there for her students. She did not want students to feel frustrated by the mathematics in her classroom. Thus, she felt that she needed to anticipate student responses:

Like you've already planned out what they're going to say. ...You're going to have an answer ready. And I think that for a lot of students that is so helpful because um I just feel like students get frustrated if they ask questions, you're just like I don't know we'll get back to that. The student wants to know right then... It's just like if you can, try to prepare that for your student to make them feel at ease. (Melissa, Int. 2)

Anticipating student responses was discussed in the methods course, although it was not motivated by a discussion of students' frustrations – it was motivated by a desire for the teacher to be prepared to ask appropriate questions to push the students' thinking about the mathematical ideas that were the goal of instruction.

Alex believes students have to feel comfortable in order to learn. Thus a teacher needs to be approachable and encouraging. Students should also feel respected and valued; they should not feel stupid. Thus a teacher should not be intimidating but should strive to be an influence and a role model and should value students as people. Alex described a good teacher as very understanding and very patient. Alex's main concern was to prevent students from feeling, as he did, that they were just "products of the system" (Alex, Int. 1). He described his own learning of mathematics as surface-level, simply memorizing what was necessary for the test and then forgetting it, and he consequently desired that his students learn to do the mathematics for themselves, valuing group worthy tasks and having students do the mathematics themselves. Like Melissa, Alex's desire that students not feel like products of the system but feel valued as people became a motivating factor for his desire to implement activities discussed in the pedagogy courses as good teaching: implementing tasks in groups that are worthy of students working in groups and having them do mathematics rather than memorizing rules and procedures.

Jason's main goal was that students begin to enjoy the mathematics as he himself does. He wants to help his students be interested in the material, and he wants to develop in them an appreciation of the struggle necessary to understand mathematical ideas, or at least a willingness to struggle, work hard, and persevere in their mathematical endeavours. In order to do this, he believes a teacher must be both focused and relaxed, show students that he enjoys being there, and be nice to students. Jason's goals for student affect are more grounded in mathematics (he tended to view himself more as a mathematician), but the characteristics of a teacher and the teaching actions he described focus on the non-mathematical aspects of teaching: being nice, focused, relaxed, etc. He wants students to be excited about mathematics in general, not necessarily the particular ideas they are supposed to learn that day. Thus, he intends to bring in applications and current events, and to focus students on the logic of math, which he finds to be both essential to learning math and a motivating factor in learning it. "I just want to be the kind of teacher that covers the material but also realizes the students can be excited about math, not just the material, not just the standard" (Jason, Int. 3).

Jill believes that students should feel comfortable in class, both comfortable in asking questions and feeling like the teacher is knowledgeable, trustworthy, and understanding or approachable. This desire for students to feel comfortable seems to stem from the way she believes she learns, "I'm a big believer in getting yourself really confused and then working your way out of it" (Jill, Int. 1). Jill's descriptions of a good teacher as approachable, flexible, supportive, and encouraging correspond to her desire for students to be able to be confused and work their way out of that confusion in a supportive environment. She desires to emulate a teacher who taught her to work through ideas and to work her way through and out of a tough spot rather than be a "boring" teacher who lectures the whole day (Jill, Int. 1). Jill's desires to use group work and to focus on student engagement are motivated more by a desire for her students not to be bored than by an acknowledgement that students learn more mathematics when they are engaged in doing mathematics in particular ways.

DISCUSSION/IMPLICATIONS

Students' affect while doing mathematics was a strong influential factor in how the participants wished to see themselves as teachers, or in other words, in the cognitive

aspect of their professional identity. In particular, the participants' recollections of affective reactions to experiences as students, as observers, or working with students in any setting seemed to have translated into beliefs about how they want students to feel and what teachers should do (or not do) in order for students to have those feelings. Britzman (2009) describes this paradox prospective teachers face:

Newcomers learning to teach enter teacher education looking backward on their years of school experience and project these memories and wishes into the present that they then identify with as somehow an indication of what should happen or never happen again. (p. 28-29)

Students come into our teacher preparation programs with a focus on affect. Yet, it is uncommon to talk about student emotions (with the exception of student motivation) in teacher preparation programs. For our participants, ideas about student affect were consistent major goals in their vision, even though they were rarely discussed in their coursework. They co-opted the good pedagogical practices that were intended to produce deep student understanding and learning of mathematics and embraced them because students would have desired affective responses if engaged in them. If prospective teachers are given the opportunity to talk about their future students' affect, teacher educators may be able to use the prospective teachers' desires to make students comfortable to motivate reform-oriented practices. Hence, we could leverage our prospective teachers' focus on desired student affect as a motivating factor for their engagement in and learning about desired pedagogical practices.

Acknowledgements

This paper is based on work supported by the National Science Foundation under Grant No. 1149436. Opinions, findings, and conclusions in this paper are those of the authors and do not necessarily reflect the views of the funding agency.

References

- Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teacher professional identity. *Teaching and Teacher Education*, 20(2), 107-128.
- Britzman, D. P. (2009). *The very thought of education: Psychoanalysis and the impossible professions*. Albany, NY: State University of New York Press.
- Brown, T. (2008). Becoming a teacher. In T. Brown (Ed.), *The psychology of mathematics education: A psychoanalytic displacement* (pp. 95-117). Rotterdam: Sense Publishers.
- de Freitas, E. (2008). Troubling teacher identity: Preparing mathematics teachers to teach for diversity. *Teaching Education*, 19(1), 43-55.
- Flores, M. A., & Day, C. (2006). Contexts which shape and reshape new teachers' identity: A multi-perspective study. *Teaching and Teacher Education*, *22*, 219-232.
- Freeman, M. (2010). 'Knowledge is acting': Working-class parents' intentional acts of positioning within the discursive practice of involvement. *International Journal of Qualitative Studies in Education*, 23(2), 181-198.

- Friesen, M. D., & Besley, S. C. (2013). Teacher identity development in the first year of teacher education: A developmental and social psychological perspective. *Teaching and Teacher Education*, *36*, 23-32.
- Glaser, G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Hawthorne, NY: Aldine de Gruyter.
- Goodwin, C. (1994). Professional vision. American Anthropologist, 96(3), 606-633.
- Hammerness, K. (2001). Teachers' visions: The role of personal ideals in school reform. Journal of Educational Change, 2, 143-163.
- Hammerness, K., Darling-Hammond, L., & Bransford, J. (with Berliner, D., Cochran-Smith, M., McDonald, M., & Zeichner, K.). (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 358-389). San Francisco, CA: Jossey-Bass.
- Hannula, M. (2002). Attitude towards mathematics: Emotions, expectations and value. *Educational Studies in Mathematics*, 49, 25-46.
- Lutovac, S., & Kaasila, R. (2011). Beginning a pre-service teacher's mathematical identity work through narrative rehabilitation and bibliotherapy. *Teaching Higher Education*, *16*(2), 225-236.
- McLeod, D. B. (1992). Research on affect in mathematics education: A reconceptualization. In D. A. Grouws (Ed.), *Handbook of research on mathematical thinking and learning* (pp. 575-596). New York: Macmillan.
- Peressini, D., Borko, H., Romagnano, L., Knuth, E., & Willis, C. (2004). A conceptual framework for learning to teach secondary mathematics: A situative perspective. *Educational Studies in Mathematics*, 56, 67-96.
- Pillen, M. T., Den Brok, P. J., & Beijaard, D. (2013). Profiles and change in beginning teachers' professional identity tensions. *Teaching and Teacher Education*, 34, 86-97.
- Sfard, A., & Prusak, A. (2005). Telling identities: In search of an analytic tool for investigating learning as a culturally shaped activity. *Educational Researcher*, *34*(4), 14-22.
- Sugrue, C. (1997). Student teachers' lay theories and teacher identities: Their implications for professional development. *European Journal of Teacher Education*, 20(3), 213-225.