A Different Kind of Kid, A Different Kind of Teacher Education: Middle Grades Teachers Reflect on Their Preparation to Teach Young Adolescents

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Abstract

Good teaching at the middle grades comes out of a deep understanding of the unique cognitive, physical, social, emotional, and moral needs of young adolescents. Specialized preparation therefore is necessary to help teacher candidates understand how to operationalize the intersection of young adolescent development and the effective pedagogy that addresses their needs. This paper focuses on a qualitative study of experienced middle school teachers who graduated from a middle level preparation program or an elementary or secondary preparation program in terms of how well prepared they felt and feel to meet the widely varied needs of young adolescents. Confidence in preparation leads to high self-efficacy, which is important for perseverance and effectiveness. Graduates of a middle level preparation program reported higher levels of confidence in their preparation to teach young adolescents.

Introduction

Middle level educators have promoted specialized preparation of middle grades teachers for more than a half-century (Association for Middle Level Education (AMLE), 2015a; McEwin & Smith, 2013; Van Til, Vars & Lounsbury, 1961). These teachers are expected to apply developmentally-appropriate pedagogy and to teach young adolescents based on their physical, cognitive, emotional, moral, and social development. The AMLE, formerly National Middle School Association (NMSA) has long been a strong advocate for the middle level philosophy and specialized professional preparation of middle level teachers (AMLE, 2010a).

As a result of these efforts, most states in the US have specialized middle level teacher licensure; 45 states and the District of Columbia provide middle level teacher certification, license, or endorsement (AMLE, 2015b). However, this does not mean that higher education institutions across the country offer specialized middle level teacher credential programs. Howell, Faulkner, Cook, Miller, and Thompson (2016) reviewed the program websites of 1,324 institutions and analyzed undergraduate middle level teacher preparation programs. The researchers found that only 25% of these institutions offered a fully implemented specialized middle level program. Another 24% offered a middle grades course or some elements of a specialized middle level program, and 51% had no specialized middle level teacher preparation at all. The researchers urged institutions to provide and/or enhance middle level teacher preparation.

Does specialized middle level teacher education really matter? While many middle level advocates have come up with strong arguments (e.g., McEwin, Smith, & Dickinson, 2003) for specialized preparation and professional development, "these arguments have been based primarily on advocacy and have little empirical support" (Conklin, 2012, p. 172). Indeed, a search of the ERIC database for empirical research on specialized middle level teacher preparation revealed few articles published after 2000. The methods, major findings, and limitations of recent studies on specialized preparation of middle level teachers are summarized in Table 1.

Table 1.

Recent Studies on Specialized Middle Level Teacher Preparation
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Researchers	Methods	Major Findings	Limitations
Conklin (2012)	Comparative case study on 2 seventh-grade teachers— one received specialized middle level preparation, and the other took the subject-specific secondary pathway.	Both teachers had a partial set of understanding content, teaching, and students; they fell short of challenging young adolescents.	Only 2 teachers; only in social studies.
Conklin (2007)	Interviews with 3 prospective teachers in the elementary pathway and 3 in the secondary pathway.	The prospective teachers lacked opportunities to learn about young adolescents and teaching in the middle level; a need for specialized ML training.	Pre-service teachers; only in social studies; no observation of teaching practice.
McEwin, Dickinson, & Hamilton (2000)	Survey of 73 national board certified early adolescence/generalist teachers.	Specialized ML training is necessary because it influences teachers' understanding of (a) young adolescents' needs, (b) middle school's organization and operation, & (c) curriculum, teaching, and assessment.	Basic questionnaire; limited data analysis.
Mertens, Flowers, & Mulhall (2005); Mertens, Flowers, & Mulhall (2002)	A large-scale survey of 4,505 middle grade teachers in 303 schools.	ML teachers with specialized ML licensure in schools where teaming and high levels of common planning time are the norm engage in best practices than their counterparts who have elementary or secondary licensure.	Survey data only.
White, Ross, Miller, Dever, & Jones (2013)	Interviews with 14 Ohio ML prepared teachers in grades 5-8 and their administrators (14) and students (44); focused on teachers' perceptions of implementation of the middle school concept.	ML prepared teachers display a strong knowledge of young adolescents, but there are various gaps between their practices and the NMSA/AMLE Standards.	Low number of participants for a statewide study.

There is an obvious need for more research on the effectiveness of middle level teacher preparation (AMLE, 2010b), particularly studies comparing middle grades teachers especially prepared for this level and those who were prepared for another level of schooling. The present study is one of only a few that deliberately compare the perceptions and experiences of teachers with and without specialized middle level preparation. An example is Conklin's (2012) comparative case study, which involved two teachers of social sciences. Our study extends such comparisons to include 20 teachers in all core subject areas and focuses on their self-reports of their levels of preparedness.

Our research addresses an underexplored area in the research on middle level teacher preparation. Our study was an outgrowth of the Ohio study of the impact of that state's middle level licensure and middle level teacher preparation on teachers' beliefs and practices (White, Ross, Miller, Dever, & Jones, 2013). In that study, all participants had received licensure in middle grades teaching. This study compares and contrasts middle grades teachers who received specific preparation for middle level with those who did not. Specifically, we compared the experiences and self-efficacy beliefs of eight middle school teachers with specific middle level teacher preparation with those of 12 middle school teachers who studied in either an elementary or a secondary licensure program. The primary research question for this study was: How did middle school teachers perceive their readiness to teach young adolescents (knowledge of learners and their characteristics (Shulman, 1987))? Our research is unique because it was conducted in California, which is one of only five states that do not provide middle level teacher licensure. California is unlike Ohio, which has middle level licensure and a significant number of middle level teacher education programs. In California, the number of specialized programs has ranged between one and three in the past 25 years; at present, there is one active program dedicated to the preparation of middle grades teachers.

Our research is situated in a policy environment that does not support specialized middle level teacher preparation; yet a small number of teachers seek out and are prepared in a middle level teacher preparation program. Indeed, this qualitative study was inspired by the differences in Ohio's and California's approaches to middle grades teacher licensure and preparation. We believe that the California context will provide additional insights into the effectiveness and impact of specialized middle level teacher licensure. Our data suggest that specialized preparation leads to a feeling of preparedness in (a) understanding of the unique developmental needs of young adolescents, and (b) effective team work in the middle school environment. This preparedness, in turn, leads to high selfefficacy, which is important for perseverance and effectiveness-both of which are attributes of developmentally-responsive middle grades teaching.

Literature Review

The teaching profession historically experiences high attrition rates with large numbers of teachers changing careers within the first five years of their experience (Adoniou, 2014). While myriad reasons to explain this exodus exist, research has identified some themes that weave throughout many teachers' decisions to leave (DeAngelis & Presley, 2011). Sometimes it is because teachers do not feel that they have the ability to make a meaningful difference for youth in the face of political, cultural, and socioeconomic barriers, and other times working conditions and/or salary considerations contribute to the turnover. Conversely, however, teachers who stay and thrive in the profession express the deeply held belief that they have an impact on their students' lives in numerous ways, large and small, that mitigate negative emotions caused by extrinsic challenges.

Research indicates that issues both concrete and abstract contribute to teachers' feelings of their preparedness to be effective with their students. Although empirical evidence is by no means conclusive in terms of what factors influence teacher quality (Wang, Spalding, Klecka, & Odell, 2011), research has nonetheless identified several concrete factors that do contribute to teachers' feeling of preparedness and readiness to meet the myriad challenges they face both within and outside of the classroom. They include having a strong grasp of pedagogical best practices (Marsick & Watkins, 2001) and feeling supported in their student teaching environments (Knoblauch & Woolfolk Hoy, 2008).

Abstractly, teachers who recognize that their skill set and/or knowledge base is an appropriate match for the challenges at hand (Cskikszentmihalyi, 1990) approach their practice with the feeling that they possess the requisite abilities to meet their students' needs and to help them be successful. They are often able to persist through irrelevant professional development experiences or in the face of frustrating district demands because they find joy in the work and recognize that they are making a difference in the lives of the students they serve. When analyzing the root of these positive attributes, it appears that a psychological construct offers an explanation. Self-efficacy refers to one's perception of his/her ability to successfully perform any given task (Bandura, 1997) and is a situation-dependent judgment that individuals make about their abilities as they relate to their immediate circumstances (Bandura, 1993). While selfefficacy can and does apply to myriad situations, this abstract concept has a very real impact on teachers' feelings of their preparedness for the classroom and readiness to take on challenges. Because young adolescents are in such a unique developmental period with very specific academic, social, and emotional needs, middle school teachers especially need to feel selfefficacious if they are to remain in the profession long enough to hone their practice and create effective learning environments.

Method

California Context

Inspired by the Ohio study of the impact of the state's middle level licensure and middle level teacher preparation on teachers' beliefs and practices (White, Ross, Miller, Dever, & Jones, 2013), the researchers conducted a similar study on a smaller scale in California. In contrast to Ohio, California has never offered a stand-alone credential (license) for teachers in the middle grades.

California middle level teachers hold either a Multiple Subject (elementary) or Single Subject (secondary) credential. To meet the standard of "highly qualified teachers" in the No Child Left Behind Act of the early 2000s, school districts increasingly moved toward hiring teachers with Single Subject credentials for their middle level openings. Although this presumably assures a greater depth of knowledge in a curriculum area, administrators find it difficult to fit teachers into a middle school schedule when they can only teach one subject.

Some middle level administrators prefer to hire teachers with Multiple Subject credentials, believing that they are better prepared to work with young adolescents with elementary level academic skills and to work effectively on interdisciplinary teams. For teachers holding the Multiple Subject credential, two pathways allow middle school teaching: (1) demonstrate depth of content knowledge by having extensive coursework (a major or equivalent) in a field, leading to a Subject Matter Authorization valid through grade 9 or 10; or (2) add a Single Subject credential through a state subject-area test (California Subject Examinations for Teachers, or CSET).

The best possible qualification for a middle level teaching position as "highly qualified" includes both Multiple and Single Subject credentials, which provide both the skills needed for students below grade level achievement and advanced content knowledge background. This set of credentials, while attractive to both administrators and teacher candidates, is difficult to achieve and does not ensure that the candidate has any background in middle level education per se.

The participants in this study who had middle level preparation earned Multiple Subject credentials plus at least one Subject Matter Authorization or Single Subject credential, as well as a Certificate of Advanced Study in Middle Level Education (conferred not by the state, but by their university). Their teacher preparation program is the only active program in the state that is explicitly dedicated to preparing teachers to teach young adolescents. Although California has "overlapping" licensure with no specified grade levels for either the Multiple or Single Subject credentials, this university teacher preparation program acts as if there were a stand-alone middle level credential.

While teacher candidates graduate with a Multiple Subject (elementary) credential as well as Subject Matter Authorizations or Single Subject credentials that allow teaching in high school, the intent of the program from admissions through coursework and clinical practice is to prepare middle level teachers. In line with the vast majority of California's teacher credential programs, this program consists of one academic year of post-baccalaureate (fifthyear) preparation. All coursework in the program is team-taught onsite at a middle school.

Teacher candidates (approximately 25 each year) take four courses in each of the two semesters, plus clinical practice experiences of eight weeks each in two different middle schools. All candidates enroll in the same courses: a twosemester sequence of Teaching and Learning for Young Adolescents; two courses in Literacy; methods courses in Mathematics, Social Science, and Science; and a course in Multicultural/ Multilingual Education.

Participants

Researchers had access to five California middle schools in five different districts – one urban, three suburban, and one rural. School site administrators selected the participants, all of whom they considered to be exemplary teachers. In four of the five districts, administrators chose two effective teachers with specific middle level teacher preparation and two effective teachers without specific middle level teacher preparation. In the fifth district, the administrator chose four teachers without middle level preparation. This resulted in eight participants with middle level preparation and 12 participants without middle level preparation (seven elementary, five secondary).

Both male and female participants represented a wide range of years of experience as well as four core academic content areas. Most participants without middle level preparation came from traditional teacher education fifth-year programs, although a few earned licensure through alternative pathways (e.g., in intern programs).

In Tables 2 and 3, and throughout the study, teachers with middle level teacher preparation have been assigned pseudonyms starting with the letter "M" (e.g., Mark, Maria). Others have been assigned pseudonyms starting with "E" (e.g., Emily, Elena) if they had elementary preparation and licensure or "S" (e.g., Samuel, Sara) if they had secondary preparation and licensure.

Participant	Gender	Total years in teaching	Years teaching in middle school	Subject(s) taught
Mark	М	15	15	LA
Maria	F	11	11	MA, SCI
Melinda	F	7	4	MA
Murray	Μ	2	2	LA
Mitch	Μ	7	7	SOCST
Mandy	F	16	16	MA, SCI
Mimi	F	12	12	LA
Molly	F	17	17	LA, SOCST

Table 2.Teacher Participants:With Middle Level Teacher Preparation

Table 3.

Teacher Participants - With Elementary or Secondary Preparation

Participant	Gender	Total years in teaching	Years teaching in middle school	Subject(s) taught
Emily	F	10	4	LA, SOCST
Elena	F	11	11	MA, SCI
Elisa	F	20	10	LA, SOCST
Elly	F	9	7	LA
Erin	F	21	5	LA
Eva	F	9	8	LA
Etta	F	19	19	MA, SCI
Samuel	М	24	24	SCI
Sara	F	12	12	SOCST
Steve	Μ	10	10	SCI
Sophia	F	6	1	SCI
Susan	F	6	6	MA

The research questions guiding the study and the interview protocol were adapted from the Ohio study (White et al., 2013) and were aligned with AMLE Professional Preparation Standards. [Appendix A] Focusing on gathering data about teachers' perceptions of their readiness to teach young adolescents when they began teaching in middle schools, the primary research question analyzed for this article was: How did middle school teachers perceive their readiness to teach young adolescents (knowledge of learners and their characteristics (Shulman, 1987))? In an attempt to answer this question, the teachers' responses were compared and contrasted in two categories: those who were licensed through a specific middle level teacher preparation

program and those who were licensed through either an elementary or secondary teacher preparation program.

Procedure

The research study was an interview study used by whose methods were informed by emergentgrounded theory design. Emergent-grounded theory requires coding data, permitting a theory to emerge through constant comparison and sorting of responses and sensitivity to patterns, themes, and categories (Glaser & Strauss, 1967).

Interviews of the 20 participants were held onsite at middle schools, most often during the teachers' preparation periods. The out-of-state researcher conducted all but two of the interviews. The remaining two interviews (participants with no middle level preparation) were conducted by one of the in-state researchers. Interviews ranged in time from 40 to 55 minutes. All interviews were recorded and then transcribed verbatim. All identifying data about the participants were removed from the transcriptions during the initial data analysis. Two researchers independently coded participant responses without regard to their teacher preparation. Potential categories, patterns, and themes were noted. Following the first round of coding, the data were re-sorted according to whether teacher participants had middle level preparation or elementary/ secondary preparation. The researchers conducted a second round of data analysis independently and then compared emerging themes that could be identified with those participants who were middle-level prepared and those who were elementary/secondary prepared. The initial themes were then discussed by the entire research team and were refined with input from all.

Results

In analyzing teachers' self-reports about their readiness to teach middle school youth and content in the context of their initial teacher preparation, two themes emerged: understanding young adolescent development, and building skills for the middle school environment. We discuss the data on these two themes in the next section. Pseudonyms are coded according to Tables 2 and 3 above to indicate their preparation at the elementary ("E" names), middle ("M" names), or secondary ("S" names) levels.

Understanding Young Adolescent Development

Because of the rapid cognitive and physical changes that characterize young adolescent development (Luna, Padmanabhan, & O'Hearn, 2010), recognizing what makes this age group

both unique and challenging is one key to successful teaching at the middle level. Responses from educators who were prepared in a specific middle level program illustrated how they were equipped to deal with the different needs of middle schools students. A number of middle level-prepared teachers benefited from experiences that took them straight into the milieu of middle schools. Their credential classroom was located at a middle school, where Mandy and her classmates learned to take in stride "milk fights and the other stuff that middle schoolers do." Multiple teachers noted that the two assignments on shadowing a middle school student were invaluable. They also noted the requirement that they spent a few days observing in a high school and an elementary school, so they developed a sense of what makes a young adolescent different; Molly realized that "this is the kid you're going to be teaching." Additionally, all their clinical practice experiences were done in middle school classrooms.

Mimi pointed out that "I had experience with middle school, but the teaching credential program kind of made that even more; you have all your nuts and bolts but...they would always bring in the human aspect...you always had to think about what do the kids come with, where are they starting, where can you take them—not just the curriculum but the whole human aspect that helped me prepare for especially my first year."

Maria stated, "I remember lots of discussion about middle aged kids...one assignment that had us making these posters with kids going through all these different emotions." Maria's observations as well as her learning from coursework align with what cognitive neuroscientists know about young adolescent brain development; this stage is characterized by massive changes to the cerebral cortex, which creates increasingly complex cognitive abilities (Luna et al., 2010).

Understanding the cognitive and emotional needs of students is an essential ingredient when

designing curriculum and instruction that engages middle school students. Mandy commented "[the students] let you know that it's more than just the topic - the subject matter it's also about the child and sometimes you just can't mow through that unit that quickly because they're having their up and down days." Youths process their worlds differently from adults, which is why middle schools teachers must recognize and be empathetic to the up and down days. It is not that the adolescents necessarily want to be adversarial or frustrating, but they often cannot react quickly enough to their environmental cues and change their behavior accordingly. Advances in science and technology have created much clearer pictures of what is actually happening in the adolescent brain, and cognitive neuroscientists have offered some concrete explanations for frequently maddening behavior. Because of the "network upgrades" occurring throughout the teen years, adolescence is characterized by a gap between detecting changes in the environment and actually changing one's behavior (Lourenco & Casey, 2013), which teachers prepared by a specific middle level program were better equipped to accommodate. As Melinda explained:

> The middle school program really prepared you for the adolescent brain- short attention span that needs something - not gimmicky - but catches their attention, keeps their attention, keeps them moving all the time so you can get your curriculum across and not have them tuning out...We talk a lot about the middle school brain and the hormones that are changing and the bodies that are changing... We're teaching curriculum, but in small amounts so that we can deliver it and track it as we go, rather than just

the traditional lecture, notes, and... homework.

Responses from teachers who were prepared in either an elementary or single subject venue reflected a desire for the same understanding of the young adolescent development and often described their teaching experiences as "overwhelming" because they had not received instruction in young adolescents' unique and specific developmental needs. They therefore had trouble planning cognitively, socially, and emotionally appropriate lessons and activities. Elena described her experience as "learning on the job," which is not the most effective way to teach kids. She elaborated by saying, "I feel like the program that I took was mainly geared towards elementary school...When I was in sixth grade it was elementary school, and I went to junior high and it was seventh and eighth grade, so it was very different." In other words, the first time that Elena had been in a middle school was when she was hired to teach in one.

Those who graduated from programs geared toward elementary classrooms had no curriculum or required experiences with children beyond sixth grade. When asked about young adolescent development, Eva responded, "I'd have to go back and look at my notes," and Elena noted, "that was not something I obtained" in initial preparation. As a result, said Elisa, "It was a rough road the first few years" as she "learned a lot in the job."

Teachers with middle level preparation described their teacher preparation as being a solid preparation in teaching young adolescents. They felt prepared to understand what appropriate expectations of young adolescents would be. "They taught me really well what to expect from middle school kids," Molly noted. Maria was taught that young adolescents "really are a different kind of kid...[and] it comes back to me a lot." Melinda felt "really prepared...for the adolescent brain," and Mimi understood "what...the kids come with, where are they starting, [and] where can you take them." Mandy recalled an emphasis on "tapping into all their different strengths and interests" to motivate young adolescents, rather than "just plowing through the topic." Melinda mused that boys going through early puberty "are all over the map...they're growing, they're gazing off into space, but we know that going in, so we plan activities that are involving, moving, and [with] interactivity."

In contrast, as an elementary-prepared teacher, Elena felt that her teacher education curriculum, practicum experiences, and required standardized tests had "nothing to do with what I'm teaching" in middle school. Teachers in elementary or secondary programs cited powerful learning experiences from their practicums in schools, but few of these were at the middle level. One teacher who did have a middle school practicum felt that it was helpful, but since it was not connected to any coursework in her program, it was not as powerful as it might have been. The middle level-prepared teachers had two eight-week practicums in different middle level classrooms where they worked with effective middle level educators and made specific connections back to coursework. This also likely led to the high feelings of selfefficacy that the participants reported. The multiple opportunities to immerse themselves in middle level learning activities also allowed the teachers to see the importance of building solid relationships with their students. Capitalizing "on the multiple avenues through which students can be connected to schools" (Faircloth & Hamm, 2005, p. 306) is a finding consistent in much of the research on effective middle grades teaching.

As a result of their knowledge base in young adolescent development, these teachers designed curriculum and planned instruction that looked and sounded different from lessons they might prepare for elementary or high school students. Although the elementary- and secondary-prepared teachers praised their preparation programs for high overall quality, they admitted that they knew very little about young adolescents when they entered the middle grades classroom. Susan recalled, "Just one of the classes I had was a psychology class for adolescents." Emily stated, "I don't think I was very well prepared" for middle school because her program was for elementary school teachers.

Building Skills for the Middle School Environment

Seeing middle level education as a distinct phase of schooling is a fundamental goal of middle level advocates. Teachers with preparation in middle level education identified the importance of their preparation in this area. As Mitch recalled, "Everything was centered around middle level, even when some little things about teaching in general would come up, there was a way [to ask], 'How does this apply to middle level?" Mandy reflected that the fact that the program was held on a middle school campus providing regular interaction amongst teacher candidates and middle grades educators and students kept her from becoming "more traditional like [a] mini-high school teacher." Milner and Tenore (2010) agree that regular interaction and a deep immersion in the students' worlds is essential for effective teaching at the middle grades. While teachers do not need to come from the same background or have the same youthful experiences as their students, they do need to understand power structures among students and view school as a community. It appears that teachers who were specifically prepared to teach middle school were better equipped to find out about their students' lives beyond the classroom. This leads students to believe that their teachers care about and are committed to them (Ozer, Price, & Kong, 2008).

A key skill for middle school teachers is collaboration. While two of 12 elementary/ secondary-prepared teachers felt that they had excellent experiences in working collaboratively, virtually all of the middle level-prepared teachers spoke about their readiness to engage in team planning and teaching. Mandy felt that the professors "intermixed cross-curriculum stuff, [and] they really pushed working together." At the same time, the middle level graduates were critical of their colleagues who were not prepared in a middle grades program because, as Melinda noted, "Collaborating with other teachers is foreign, and they have to get used to that." She also noted that in her eighthgrade team, "We do a lot of collaboration...what are you teaching, how will we bring it into each other's classrooms and support each other?" She felt well-prepared for working on her interdisciplinary team because there was "a team kind of atmosphere" throughout the program.

Middle level-prepared teachers perceived themselves to be less overwhelmed in the early years of their careers. Many of them attributed this to ongoing opportunities in their teacher education programs to practice the activities they would undertake in middle schools. They felt able to make a contribution even in their first year of teaching. Mimi felt that the program's emphasis on "the human aspect" of teaching allowed her to build a solid working knowledge of middle grades curriculum and instruction, which coupled with a good work ethic, led her to be calm from the start. She knew that teaching middle school was "not just the curriculum." Without these attributes, a teacher "would show up and be completely overwhelmed by the curriculum, the workload, the kids' attitude...I think you might not teach very long" in such circumstances. Similarly, Mark praised the emphasis on becoming a reflective practitioner where he learned that he should be "constantly monitoring yourself and your students, learning from that and adjusting, trying new things." Mark's experience was echoed by participants in an earlier study (Watts & Lawson, 2009), which found that it is important to "distinguish between simple reflection and critical reflection" (p. 610). Critical reflection has the very specific goal of actively improving current practice and was a hallmark of the middle level education program. It makes sense that a focus on critical reflection would contribute to greater feelings of preparedness because competence is a basic psychological need and a hallmark of motivated individuals (Ryan & Deci, 2000).

Powerful learning activities in the middle level program helped teachers internalize how the young adolescent differs from an elementary or high school student so that they learned to keep the developmental needs at the forefront of all planning. Shadowing a middle school student for a day was noted as one of these valuable experiences. Molly said she began to understand that "this is the kind of kid you're going to be teaching," and it made an impact on the way she thought about teaching. Another learning experience that had a powerful effect on the teachers in the middle level program was observing the beginning of the year preparation days as well as the first three days of school. As Mark recalled, this was "very useful...to see how a teacher sets up a room, introduces themselves...so the first time you did it on your own [in middle school], you had seen someone else do it."

As they became experienced teachers, those with middle level preparation were able to compare their experiences with those of teachers who did not specifically focus on the young adolescent learner. In their roles as cooperating teachers, new teacher mentors, and department chairs, they were able to identify the differences between programs that were or were not focused on teaching young adolescents. Melinda felt that teachers "that have not come from a middle school program struggle with identifying with the students initially. They struggle a lot with curriculum planning because they get in and realize going straight from the textbook doesn't work, and so that's when they start having discipline problems - not that we don't all struggle with that - it's middle school - but they have lots more discipline problems coming in from other programs because they're not delivering their curriculum in a manner that is getting to students."

Such teachers did not seem as well-prepared for middle level classroom management, reflective teaching, or building communities. Murray judged that such teachers "feel like, 'Oh, I wish someone would have told me this is how I should do this." When mentoring teacher candidates enrolled in a middle level program, he identified fewer nerves and more attitudes of "let's do it, [I'm] ready to try this." Murray mused, "I feel as though I had an immense benefit in going through" a middle level program, as the teacher candidates from elementary and secondary programs are not as well-prepared and have an "almost palpable sense of nervousness" when faced with teaching in middle school. Upon observing many novice teachers without middle level preparation at his school site, Murray concluded that, "It's hard to put into words, exactly...but just that kind of repeat mantra not feeling like they're quite there vet...or they feel as though in theory they've known about it but they feel under-practiced" when they start teaching young adolescents.

Teachers prepared in elementary or secondary programs often praised certain aspects of their programs-field practicum mentors, a particular professor of literacy or special education, or collaborative projects. However, they felt that they received their middle school training "on the job," in some cases benefitting from staff development provided by excellent middle school administrators. Teachers prepared in elementary subject programs had less understanding of how to connect and understand these students as they had no direct experiences with them in preparing for their credential. Teachers who came from middle level preparation programs and experienced powerful learning focused on young adolescent development had a deeper understanding of the students they were teaching and the school context in which they would practice their profession.

Irrespective of the teacher preparation pathway, most of the participants saw their content preparation as satisfactory. They talked about their strong science background or the courses they have taken in specific subject areas that gave them a solid content understanding and readiness. Mandy noted that "the subject matter is not the problem – it was…breaking it down so a middle schooler could learn it and own it…what I had to practice was how to present it." She also observed that "no one sits down with you and tells you how to design a test, how to design the curriculum from start to finish, how to make things work – so I think that's a big piece that's still missing today in a lot of teacher prep programs...what was better for me was being exposed to different ways to do things and different resources." Fortunately, however, adolescents (both anecdotally and in formal research studies) show remarkable patience with novice teachers learning the craft. They believe that their teachers care about them when they have content expertise, give advice, and help with learning tasks (McHugh, Horner, Colditz, & Wallace, 2012).

Discussion

The preparation of middle grades teachers is an issue of social justice and equity. Young adolescents require teachers well versed in adolescent development, appropriate curriculum, school structures and the like. Young adolescence is a critical time of development: middle school students experience the most growth outside of the birth to five years. It is an injustice to young adolescents when they do not have teachers prepared for all the demands of adolescence and middle school. Middle School often becomes a "last choice option" for elementary and secondary credentialed novice teachers. Young adolescents deserve to be a first choice option and anything less is inequitable. They deserve to have teachers that choose to be with them every day and are prepared to meet their needs.

Additionally, it is an injustice for new teachers who only have access to elementary and secondary credential programs who may desire to teach middle school. Teacher attrition is high in the first years of teaching due to the demands and complexities of teaching in general. Teachers prepared for elementary and secondary classrooms are not prepared for middle level classrooms and potentially more likely to leave middle school classrooms in those first years. In this study, we compared the experience between eight middle school teachers with specialized middle level teacher preparation and 12 middle school teachers without such preparation. The study had a few methodological limitations. The school administrators chose the participating teachers, and so the two pools of participants might not adequately represent all teachers who had specialized middle level preparation and those who received general training. Second, the data collection relied on participants' (selected) memory and selfreflection, so we did not have observational data on the degree the participants adopted the best practices for teaching young adolescents. Finally, we did not have data on the students' learning outcomes nor on their perceptions of their teachers' effectiveness. That is, we did not measure the impact of teachers' preparation on students' learning and dispositions. As a result, generalizations from the findings beyond the 20 participants should be made with caution because of both the small sample size and the self-reporting nature of the data.

Despite the limitations, the study confirms and extends previous research on specialized middle level teacher preparation (as seen in Table 1). Young adolescents deserve teachers with specialized training, as much as primary students and perhaps more so. Preparation of middle grades teachers is an issue of equity.

Our major finding is in agreement with studies that conclude that specialized middle level preparation provides middle school teachers a stronger knowledge base for working with both peer teachers and young adolescents than their elementary - or secondary-prepared counterparts. Our data show that this knowledge base reflects in an understanding of students' cognitive, social, and emotional development (Conklin, 2007; McEwin, Dickinson, & Hamilton, 2000; White et al., 2013) as well as teamwork and collaboration (Mertens et al., 2002, 2005). Since this finding is common across various studies, it implies that a specialized middle level credential program can find its success in preparing teachers to engage

in peer collaboration and to be aware of young adolescents' development and sensitive to their needs. However, such awareness and sensitivity do not necessarily transfer to the teaching practice of rich classroom tasks to meet middle grade students' intellectual and moral needs as they develop the capacity to think abstractly and evaluate complex issues. A challenging and exploratory curriculum envisioned in AMLE's *This We Believe* (2010a) is not readily achieved.

Indeed, our data suggest teachers' mixed selfefficacy on curriculum design. Some middle level specially trained teachers thought they had adequate pedagogical content knowledge to design learning experience that engages middle school students, while others felt that they were not sufficiently prepared to challenge students in meaningful ways. This difficulty is also seen in the two seventh-grade teachers in Conklin's (2012) study and the teachers in the Ohio study by White et al. (2013). Conklin found that both teachers had a partial understanding of content, teaching, and young adolescents. As a result, it was difficult for them to adequately challenge students. White and colleagues observed that overall their participants did not implement an integrative curriculum to challenge students. Similarly, many teachers in our study found it challenging to engage students in meaningful inquiry even if these teachers felt they had a strong command of content knowledge in their field as well as knowledge of young adolescent development. Therefore, an implication for future research is to identify conditions in the organization and culture of a middle school that are conducive to the transfer of teacher knowledge of content and young adolescents to effective teaching practices that engage middle school students in in-depth knowledge acquisition.

Our data reveal a unique finding that is not addressed in the research we have reviewed. Compared to the teachers who took the elementary or secondary licensure pathways, the teachers who received specialized preparation reported persistence in dealing with the challenges and struggles in teaching young adolescents. They felt that they could make a contribution to students' well-being, a feeling of value. They also had a positive attitude that "I can do it." These elements shaped the teachers' high self-esteem, which helped them navigate the first few years of teaching and stay in the profession. This finding suggests that investigation into the effects of specialized middle level teacher preparation and professional development should include the affective domain of middle grades teachers' perceptions of preparation and effectiveness, in addition to the cognitive domain (knowledge of young adolescents, curriculum, and pedagogy) and social domain (collaboration and teaming). In other words, an implication is that a triad model will provide a comprehensive account of middle grades teachers' perceptions of their professional preparation and self-efficacy in teaching young adolescents. Future research can shed more light on the affective domain and how it may interact with the other two domains. Moreover, professional development providers should consider affective factors in teachers' continuing specialization in the middle grades.

Conclusion

Democratic principles of education indicate that individuals are entitled to an education that addresses their needs. The very nature of young adolescence cries out for attention to fairness, justice and equity. Credential programs that prepare elementary and high school teachers do not necessarily prepare teachers for the unique and distinctive place that is middle school full of developing young adolescents. Teacher preparation programs must practice what we preach. An equitable program would assure that novice teachers can attend to the social, emotional, psychological and physical needs of young adolescence, can create engaging classroom environments, design and implement appropriate, accessible curriculum, create and interpret assessments to inform their instruction and their students and prepare their students to be active and critical participants in a democratic society. Elementary and secondary

programs fall short and therefore cheat young adolescents of the teachers they deserve.

Teachers prepared in middle level teaching programs entered the classroom with a larger skill set that allowed them to feel successful quickly. Their understanding of adolescent development created an environment of success for the teacher and student with less of a learning curve. When teacher candidates enrolled in a middle level program, middle levelprepared teachers identified less nervousness and greater attitudes of "let's do it, [I'm] ready to try this." At such a pivotal time in human development, having teachers able to understand and support the young adolescent is paramount to their success.

The ability to be a successful teacher of the middle school student involves an arsenal of skills. A middle level teacher needs to have the knowledge to see and understand their developmental place in order to understand the transitions through which young adolescents pass, "one must not only recognize but also be willing to embrace the challenges of this developmental phase" (Roney, 2001, p. 82). When middle grades teachers have a solid understanding of the adolescent mind, they have increased self-efficacy in their abilities to teach these students that go beyond a teacher who lacks this knowledge. A program that specifically prepares a teacher for teaching young adolescents makes a difference for the students' learning as well as the teachers' ability to facilitate their learning. Specifically, a deep understanding of adolescent development, the ability to create powerful learning activities that increase engagement and understanding, as well as a strong understanding of the content area for which the teacher is responsible for teaching are inextricably entwined with one another. When teachers have a strong base in these areas, their effectiveness as a teacher is multiplied. A teacher not well-prepared in these areas may struggle with meeting the needs of their middle level students. A specialized program for middle schooling provides a solid foundation early in a teacher's career, providing for more success than struggle. A different kind of preparation to teach a different kind of kid is the route that teacher education institutions should take if they care about the best education for young adolescents. \diamond

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Appendix A

Teacher Interview Protocol Ohio Middle Level Professors Association Middle Level Licensure Study Adapted for California Middle Level Teacher Education Study

The purpose of this study is to describe the practices and beliefs of middle school teachers in California and their perceptions of the impact of their preparation programs on those practices and beliefs. The organizing framework for the interview questions is the National Middle School Association (NMSA) Initial Standards for Teacher Preparation, and questions are adapted from the interview protocol of the Ohio Middle Level Professors Middle Level Licensure Study.

Introduction

Purpose of study; solicitation letter; demographics sheet/consent form Check digital recorder and identify the date and name of the school Please introduce yourself by giving your name, years of experience in grades 6-8, and your current

teaching assignment

Check teaching credentials and institution of teacher preparation program

Questions (NMSA Standards)

Standard 7. Middle Level Professional Roles

- 1. What three "I Believe" statements would best define your philosophy of teaching young adolescents?
- 2. If you had the choice, would you remain a middle school teacher or would you move to the elementary or high school? Why?
- 3. What various roles do you play in the school and in your district/profession?
- 4. How well do you believe your teacher preparation program prepared you to be successful in teaching young adolescents?

Standard 1. Young Adolescent Development

- 1. What factors make teaching young adolescents rewarding and/or challenging?
- 2. What kinds of diversity are predominant in your classes, and what impact does that diversity have on your instructional planning?
- 3. In what ways do the developmental needs and characteristics of young adolescents affect your instructional planning?

Standard 2. Middle Level Philosophy and School Organization

1. Is your school organized around an interdisciplinary team structure? If so, describe how your team functions in terms of integrating curriculum, addressing student issues, etc.?

2. Does your school currently have an advisor-advisee program in place? If so, what does this look like and what is your assessment of its effectiveness? If not, how do you provide support or recognition for students in your classroom?

Standard 3. Middle Level Curriculum and Assessment

- 1. What are some of the considerations you take into account when planning your curriculum?
- 2. What do you do in order to make the curriculum meaningful and relevant to young adolescents?

Standard 4. Middle Level Teaching Fields

- 1. How well prepared were you in your content areas when you first began teaching?
- 2. How have you added or how do you plan to add to your content knowledge base?

Standard 5. Middle Level Instruction and Assessment

- 1. Describe a typical class period, including the learning environment, instructional and assessment strategies, groupings, classroom management style, etc.
- 2. How is student voice or choice provided in your classroom?
- 3. When individuals or groups of students are not successful in meeting the goals and objectives you have set, how do you respond?

Standard 6. Family and Community Involvement

- 1. How do you communicate with your students' families and how can they communicate with you?
- 2. How do you use community resources and how do you involve your students in the community?