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Citation Details

Ruben, B., Rigelman, N., & McParker, M. (2016). Analysis of Stakeholder Perceptions of a Clinical Model Involving Co-Teaching and Extended-Field Experiences in an Inclusive Middle-Grades Setting. RMLE Online, 39(6), 1–18. http://doi.org/10.1080/19404476.2016.1171571

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RMLE Online
Research in Middle Level Education

2016 • Volume 39 • Number 6 ISSN 1940-4476

Analysis of Stakeholder Perceptions of a Clinical Model Involving Co-Teaching and Extended-Field Experiences in an Inclusive Middle-Grades Setting

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Abstract

A qualitative study of the impact of a school-university partnership in which eight teacher candidates from a two-year graduate program were placed together in a poverty level middle school was conducted. Teacher candidates in this particular program receive a master's degree, as well as a teaching license in their content area and special education. Using primarily focus group interviews with school leaders, cooperating teachers in special education and content classrooms, and teacher candidates, we wanted to determine the influence of the partnership on all stakeholders. We read transcripts to identify themes and coded by those themes. Later, we tracked the frequency of responses for each theme. We also examined learning gains data for students on Individual Education Plans (IEPs) and English Language Learners (ELLs) in content rooms in which teacher candidates taught, as well as interviewed a small sampling of middle school students. We found overwhelming support for the partnership across all stakeholders. Most frequently stakeholders noted cooperating teachers' increased ability to meet the needs of students with learning differences in their inclusive classrooms. This research contributes to the literature on the impact of school-university partnerships and co-teaching and on teaching and learning.

Keywords: partnerships, inclusion, teacher education

Introduction

In the 2010 Blue Panel Report, *Transforming Teacher Education through Clinical Practice: A National Strategy to Prepare Effective Teachers*, the National Council for Accreditation of Teachers

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(NCATE) proposed that "Education of teachers in the United States needs to be turned upside down" (p. ii). Specifically, the report's writers made recommendations for more rigorous accountability; strengthening candidate selection and placement; revamping curricula, incentives, and staffing; supporting partnerships; and expanding the knowledge base to identify what works and support continuous improvement. Similarly, Darling-Hammond (2013) argued that without quality field placements, teacher candidates do not get the appropriate opportunity to apply theory to practice under the guidance of a competent mentor teacher. In response to these recommendations, teacher education programs worked to build school-university partnerships to improve the process of becoming a teacher, from recruitment to induction.

Yet, even with this attention on strengthening clinical experiences overall, teacher education programs continue to struggle with securing high-quality field placements. Overcommitted, underfunded schools are resistant to taking on what they perceive as one more thing. Resistance is especially strong with the federal pressure to align student test scores to teacher evaluation. Why would any principal risk putting a novice teacher in front of a large class of struggling students under these stressful conditions? For universities to secure partnerships, schools need to know what they might gain from the arrangement (Jeffery & Polleck, 2010). One way some schools of education have responded is by integrating a co-teaching model into student teaching. By allowing the cooperating teacher to co-teach alongside the teacher candidate, students continue to benefit from their teacher's expertise, thus ameliorating some of these concerns (Bacharach, Heck, & Dahlberg, 2010). We examined one such school-university partnership with a middle school and the Secondary Dual Educator Program during the 2011–2012 and 2012–2013 school years.

The Secondary Dual Educator Program (SDEP) is a two-year full-time master's program that prepares teacher candidates in both special education and a content area. We believe the SDEP teacher preparation model aligns closely with that proposed in *Turning Points 2000* (Jackson & Davis, 2000). Teacher candidates receive extensive course work in differentiation, universal design for learning, literacy across the disciplines, and teacher collaboration. Upon completion, they are required to demonstrate competence by applying their knowledge and skills in the above mentioned areas during their field experiences that are continuous throughout the program (Jackson & Davis, 2000).

In this article, we describe an effective school-university partnership with a middle school where a cluster of eight SDEP teacher candidates were co-teaching in both special education and general education across a two-year period. This particular school, Stream Middle School, also exemplified Association for Middle Level Education's (AMLE, formerly the National Middle School Association [NMSA]) elements of effective middle grades instruction (NMSA, 2010). Stream had a culture of learning for both students and adults. Professional development was ongoing. Ongoing coaching and teaming were the norm. As recommended by AMLE, student-focused interdisciplinary collaboration was the norm. Teachers and teacher candidates, alike, collaborated across multiple class settings; they co-planned and co-taught on a routine basis.

To guide our examination of the partnership, we asked, "What do key stakeholders perceive to be the benefits and drawbacks of a school-university partnership in which teacher candidates are clustered in a co-teaching model?" We were particularly interested in the perspectives of teacher candidates, university faculty, special and general education teachers, and school administrators. In addition, we sought to document potential outcomes of the co-teaching model and issues that arose in implementation.

Literature Review

Two areas of the professional literature seemed relevant to review with regard to our research question. First, we wanted to examine what others had written about school-university partnerships' impact on teacher candidate placements and clinical experiences. In particular, we wanted to consider what others had found about the effects of professional development schools and the use of co-teaching and collaboration in a student teaching setting. Secondly, our partnership involved teacher candidates enrolled in a merged program in which they received preparation in both general education and special education. We drew from the literature on co-teaching to inform program structure and to achieve inclusive education. We wanted to know if others had demonstrated that dually prepared teacher candidates could contribute their unique knowledge and skills to the general education classroom to support students' learning as well as cooperating

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teachers' perceptions about and implementation of inclusive practices.

School-University Partnerships to Support Teacher Candidate Placement

The student teaching experience is crucial for teacher development (Arhar & Walker, 2002; Feiman-Nemser, 1983; Goodnough, Osmond, Dibbon, Glassman, & Stevens, 2009; Zeichner, 2002), but not all student teaching placements are equally beneficial to teacher candidates (Anderson & Stillman, 2010; Feiman-Nemser, 1983; Goodnough et al., 2009; Graham, 2006). Typically, teacher candidate placements involve cooperating teachers' gradual release of control of the classroom until teacher candidates take over as the lead teacher (Arhar & Walker, 2002; Feiman-Nemser, 1983). The quality of the placement is dependent upon the cooperating teacher who mentors the teacher candidates (Anderson & Stillman, 2010; Feiman-Nemser, 1983; Graham, 2006; Zeichner, 2002). In addition to being exemplary teachers, cooperating teachers must also be willing and able to articulate the thinking behind their actions, as well as be willing and able to release, or at least share, control of their classrooms with a novice. Effective cooperating teachers need to have "adaptive expertise" in their teaching, enabling them to be metacognitive about their practice (Bransford, Brown, & Cocking, 2000). Despite the importance of cooperating teachers, it is often difficult to find cooperating teachers with this unique set of characteristics (Anderson & Stillman, 2010; Walkington, 2007; Zeichner, 2002).

Universities collaborate with local schools to ensure quality student teaching placements (Walkington, 2007; Zeichner, 2006). One successful model of school-university partnerships is the professional development school (PDS). The partnership shares a mission of preparing new teachers, developing knowledge and skills of mentor teachers and faculty, and supporting student learning (Howell, Carpenter, & Penny, 2013; NCATE, 2001). PDS's effectiveness is dependent on a variety of contextual issues (Allsopp, DeMarie, Alvarez-McHatton, & Doone, 2006; Martin, Snow, & Torrez, 2011; Rice, 2002; Walkington, 2007).

One of the benefits for teacher candidates in professional development schools is the ability to cluster placements (Kern, 2004), allowing them to support each other as they develop knowledge, skills, and understanding of a professional educator. Clustering sometimes involves placing more than one teacher candidate with the same cooperating teacher enabling teacher candidates to co-plan and co-teach as they develop as novice teachers. In the context of teacher education, most co-teaching involves more of an apprenticeship model where the novice and veteran teacher teach together rather than the traditional "sink or swim" system many veteran teachers experienced when they were in teacher education programs. This variation of co-teaching is effective in improving both the teaching of teacher candidates and student learning in the classroom (Bacharach et al., 2010; Goodnough et al., 2009; Rigelman & Ruben, 2012; Roth & Tobin, 2001).

Co-Teaching to Enhance Inclusive Education

Historically, special educators used a co-teaching model to encourage inclusion (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). In a typical co-teaching arrangement, students with special needs remain in the general education classroom, and the special education teacher comes into the classroom and teaches alongside the general education teacher providing the scaffolding necessary for successful inclusion (Bacharach et al., 2010; Keefe & Moore, 2004; Roth & Tobin, 2001).

The Individuals with Disabilities Education Improvement Act (IDEIA; U.S. Department of Education, 2004) called for ensuring students with disabilities access to the general education curriculum in the regular classroom, to the maximum extent possible. Adhering to this law requires the increase of inclusive education practices. Teachers must be able to meet the needs of a diverse group of students, including those with learning disabilities (Arndt & Liles, 2010; Blanton & Pugach, 2011; Gately & Hammer, 2005; Sharma, Forlin, & Loreman, 2008).

Successful inclusion requires a true collaboration across, what are currently, quite different disciplines. Historically, general education and special education have been separate fields that have had little to do with each other (Arndt & Liles, 2010; Pugach, Blanton, & Correa, 2011). Recently collaborative models between general and special education have developed (Pugach et al., 2011; Rice, 2002). Pugach and her colleagues argued that effective models for collaboration across the disciplines involve efforts to taking the lens of the other redefining relationships between special and general educators and acknowledging the importance of strong content preparation as well as preparation with inclusive practices. However, infrastructure to support the models has not kept pace (Pugach & Blanton, 2012).

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Research on models of collaboration has been especially sparse at the secondary level because of the difficulty of enacting collaboration at that level (Keefe & Moore, 2004). Often, general education teachers lack knowledge of the needs of students with disabilities, and special education teachers lack the specialized content knowledge of the discipline (Arndt & Liles, 2010; Gately & Hammer, 2005; Keefe & Moore, 2004). Carefully structured programs that prepare candidates to teach both general and special education can bridge that gap (Blanton & Pugach, 2011; Griffin & Pugach, 2007; Roth & Tobin, 2001). Collaborative teacher education programs that give teacher candidates opportunities to co-teach with a cooperating teacher in both general and special education environments help break down the barriers to successful inclusion (Bacharach et al., 2010; Fullerton, Ruben, McBride, & Bert, 2011; Griffin & Pugach, 2007; Roth & Tobin, 2001).

It will take considerable work to move toward a fully inclusive model that meets all students' needs (Pugach & Blanton, 2012). Teachers have more positive attitudes toward inclusion and the potential of students with disabilities when they have more exposure to students with learning disabilities (Sharma et al., 2008). More positive attitudes by teachers lead to more positive outcomes for the students (Bacharach et al., 2010; Sharma et al., 2008).

Methods

The partnership involved the Secondary Dual Educator Program (SDEP), a merged special education/general education teacher preparation program, and a struggling middle school. This enabled us to examine (a) the effects of clustering teacher candidates on teacher preparation over an extended time period, and (b) the potential increase in cooperating teachers' understanding of inclusive classroom practices while working with teacher candidates prepared in special education and their content area. When initiating this research, we collected data over the two-year partnership to identify benefits of clustering teacher candidates, other schools and districts might view potential partnerships as assets, rather than burdens to their school community.

We approached our research as a qualitative descriptive case study drawing from semi-structured interviews to learn from various stakeholders their perceptions of the influence of this school-university partnership (Gay & Airasian, 2003). While we cannot argue for any direct causal relationships, we can discuss the patterns in the data.

Context

Stream Middle School (pseudonym) is located in a blue-collar suburb of a large urban city in the Pacific Northwest. Of the 1,000 students at Stream, 65% qualified for free or reduced-price lunch, 25% were English language learners, and 25% were students with special needs. While ranked outstanding for attendance and percent tested, Stream's achievement index was 69, ranking satisfactory for achievement. Overall, Stream had been ranked on the "troubled' list for repeatedly missing benchmarks. At the time of this study, 70% of Stream's students were at grade level in reading compared to the state average of 80%. More significantly, only 40% of the seventh graders tested at, or above, grade level on a state writing assessment. New state high school graduation requirements demanded passing scores on state writing assessments. At the time of this study, literacy instruction across the curricula was a school-wide priority.

The 2011–2012 academic year was difficult for Stream Middle School. In summer 2011, the principal laid-off and/or relocated half of the staff due to financial crisis. Class sizes increased. District restructuring led to the middle school adding sixth graders, increasing the student population by 340 students. Faculty reluctantly accepted 14 furlough days. School restructuring also resulted in cutting five minutes from each class period to add a seventh period to the day devoted strictly to intensive literacy instruction.

Despite this disruptive environment, the majority of the school staff remained dedicated to ensuring their students were ready for high school. They developed a shared vision of literacy as a civil right. The school culture functioned as a learning laboratory where many teachers willingly opened their classrooms to their colleagues to observe their practice. The instructional coach routinely visited classrooms, modeled best practices, and actively coached teachers in front of students. Monthly professional development meetings were dedicated to instructional improvement; for example, all staff participated in a book study focused on integrating literacy across disciplines. Weekly professional learning community meetings enabled teachers to collaboratively plan and examine data. The expectation was that the principal or coach could walk into any classroom and see learning and language targets posted for each lesson,

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along with "what" it looks like and "how" students will achieve that target. All teachers were required to follow a "lesson architecture," a lesson planning structure that included active student engagement, formative assessment, and a literacy component for every lesson. Stream Middle School provided an example of teachers developing a shared vision and working collaboratively to establish effective classroom instruction for their middle level students (c.f. Musser et al., 2013).

SDEP includes a field component every quarter of the two-year program. The first year of SDEP focuses on special education with a specific emphasis of literacy skills across the content areas with teacher candidates conducting literacy interventions with struggling readers. Teacher candidates paired with both a special educator and content teacher to work with struggling students across both settings. The eight SDEP teacher candidates at Stream spent 9–10 hours a week at the school from fall 2011 and winter 2012 quarters. In fall 2011, teacher candidates were primarily observing and working one-on-one with students in a special education setting. By spring 2012, they spent 20 hours a week at the school. They moved progressively into roles that were more involved and ultimately functioned as co-teachers and lead teachers in their content area classrooms by spring 2013. See Appendix A for a visual schedule of SDEP's two-year full-time program.

The instructional coach was an integral part of the partnership. She met biweekly with teacher candidates. Teacher candidates were invited to participate in guided walk-throughs, targeted observations, and structured "lab sessions" where she engaged in real time instructional coaching with veteran teachers in their middle school classrooms while other teachers and SDEP teacher candidates observed. By the second year, some of teacher candidates functioned as lead teachers during these learning lab sessions.

Teacher candidates, cooperating teachers, and university faculty worked more closely over a longer time than they would have in a traditional teacher education program. University faculty functioned as university supervisors and were on-site at least biweekly throughout this two-year cycle. The instructional coach worked closely with university faculty, taught one of the courses for the graduate cohort, and acted as one of the university supervisors. Teacher candidates were included as members of the staff. They participated in all faculty professional development, assisted in school-wide one-on-one reading and writing assessments, facilitated a service-learning day, and attended evening activities. Two teacher candidates wrote a grant to start a learning garden.

For a 10-week period in the winter of 2013, the eight teacher candidates left the school to student teach in a high school setting to obtain additional license authorization at the high school level. They returned in late March for full-time student teaching at 40 hours a week for the duration of the academic year.

Participants

The participants in this study included special educators, general educators, teacher candidates, university faculty, school leaders, and middle school students. School-based participants were selected as they formed teacher candidate cooperating teacher teams in classrooms within Stream Middle School. We briefed all participants about the intent of the study and distributed written information and consent forms.

Special educators. Five special educators were the primary cooperating teachers for the first year of the two-year program, mentoring one to three teacher candidates who were assisting with mathematics and reading interventions with their students. They were all veteran teachers ranging from 5 to 25 years of teaching experience. Two special educators were unable to participate for the duration of the study so the configuration of special educators working directly with the teacher candidates varied throughout the program.

General educators. Eight general educators also participated as cooperating teachers primarily in the second year of the two-year program. Like the special educators, the configuration of general educators functioning as mentors varied from quarter-to-quarter throughout the two-year cycle.

Teacher candidates. The eight teacher candidates were graduate students who had undergraduate degrees in their content areas and were being licensed in both special education and their content areas including one Spanish teacher, one health, three language arts, and three social studies candidates. They ranged in age from 23 to 30 years old. See Table 1 for a chart of the relationships between each group of teacher participants: teacher candidates, the special educators, and the general educators.

University faculty. Both of the university faculty involved in the partnership were veteran non-

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Table 1
Relationship among Teacher Participants

Year 1			
Content Cooperating Teacher	**Content Area**	**SPED Cooperating Teacher**	**Teacher Candidate**
Mary	7/8 Language Arts	Karen	Don
Mary	7/8 Language Arts	Karen	Marshall
Wendy	7/8 Language Arts	Holly	Henny
Tina/George	7/8 Social Studies	Amira	Tyson
John	8 Social Studies	Samantha	Joe
John	8 Social Studies	Amira	Julius
Raul	7/8 Health	Samantha	Ellie
James	7/8 Spanish	Amira	Martin
Year 2			
Content Cooperating Teacher	**Content Area**	**SPED Cooperating Teacher**	**Teacher Candidate**
Mary	7/8 Language Arts	Karen	Don
Mary	7/8 Language Arts	Karen	Marshall
Jenny	6 Language Arts	Holly	Henny
Tina	7/8 Social Studies	Samantha	Tyson
George	6/7 Social Studies	Amira	Joe
George	6/7 Social Studies	Holly/Amira	Julius
Raul	7/8 Health	Kyle	Ellie
James	7/8 Spanish	Holly	Martin

tenure-track faculty with more than 25 years of experience in the field as well as more than 15 years of experience at the university level as teaching faculty. One of the cohort leaders was faculty in the Special Education Department and the other was faculty in the Curriculum and Instruction Department. They were both part of the program design team for the Secondary Dual Educator Program (SDEP) in 2005.

School leaders. Three administrators were primary participants. The principal, who initiated the effort, retired at the end of the first year of this partnership. The second principal had been Stream's vice principal and remained committed to this partnership in her new role. The vice principal, the second year returned to Stream after a specialist position at the district office.

The instructional coach was a participant in a federal grant that included extensive coaching training at Columbia Teachers College. Through the grant, she worked as full-time coach the first year, and in the second year functioned as half-time coach while teaching two sections of language arts. As a gesture of support for the partnership, at second semester the dean of the school of education provided funding so she could resume her role as full-time coach.

Middle school students. The six middle school student participants were all seventh graders. We originally intended to follow the same students over the two-year study. Because of shifting faculty at the

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school, we were not able to support the same students with teacher candidates in their eighth-grade year. Instead a new group was selected in year two based on the classrooms where teacher candidates were working. In year one, four students were interviewed, one was female Hispanic and three were white males. All were reading below grade level. The following year, two students were interviewed; both had identified special needs and included one white female and one white male.

Data Collection

We were participant observers who served as university supervisors, cohort leaders, and instructors while conducting the study. We facilitated focus group interviews with adults and individual interviews with students, and analyzed selected classroom-based assessment data from classrooms where teacher candidates taught. We conducted focus group interviews with each participant group. The first focus group interview had five special education cooperating teachers and occurred in May 2012. The second focus group included eight content cooperating teachers and took place in June 2013. A third focus group of eight teacher candidates were interviews in both May 2012 and June 2013. Finally, the fourth focus group of the three school leaders was interviewed in June 2013. We conducted one-on-one interviews with four middle school students who worked with teacher candidates in both the special education and content classrooms during the Fall 2011. We completed separate interviews with two seventh grade youth in June 2013. In addition, we collected disaggregated classroom-based assessment data for students with special needs from each of the eight teacher candidates' content classrooms during the last quarter of the two-year cycle.

We scheduled interview sessions to accommodate the various schedules and to minimize the need for participant travel. We video recorded semi-structured interview sessions and used the same set of guiding questions for each focus group and interview. See Appendices B and C for the interview protocols. We assured confidentiality through use of a coding system for all documents and data.

Data Analysis

We used an inductive, constant comparative approach for the data analysis to establish a grounded theory (Glaser & Strauss, 1999). To strengthen the study and assure sufficiency of claims, we triangulated the data by gathering information from six different sources (Wiersma, 2000). Through interviews, we gathered the perspectives from (a) focus groups with four separate stakeholder groups (i.e., special education cooperating teachers, content cooperating teachers, teacher candidates, and school leaders); (b) individual interviews with six different middle school students; and (c) learning gains data from a spring unit of study with middle school students in teacher candidates' content classrooms. We created an aggregate collection of coded responses across focus groups or interviews from each stakeholder group. This collection was used to identify the most frequent themes in the data.

The design of our study was informed by Kvale's (1996) interview protocol. In this protocol, the interviewee describes spontaneously their answers to questions with the interviewer providing the opportunity for the interviewee to potentially discover new relationships during the course of the conversation. Next, the interviewer condenses and interprets the meanings and reflects back that interpretation to the interviewee for validation. Then, the researcher condenses and categorized the transcribed interview, identifies significant representational narratives, and then engages in interpretation. Finally, the researcher shares the interpretation with the interviewees for comment and clarification.

For the present study, we asked open-ended questions. We gathered rich descriptions based on the interviewees' experiences not to establish causality. We gathered the bulk of the data through focus groups, expecting that interviewees would confirm and add to each other's ideas as part of the process, potentially discovering new relationships. We summarized the big ideas at the end of the interview to determine the interviewees' agreement with this initial condensation. Due to issues of access to the participants (i.e., teacher candidates, cooperating teachers, and school leaders) in the new school year, we were not able to provide participants with transcriptions to review for comments and clarification.

The summer after the two-year program, we watched the video recordings of the focus groups with adult participants and interviews with middle school students and coded the data without preconceived ideas. A doctoral student, not involved in the study, also coded the data separately. This purposeful approach helped

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mitigate any of our potential biases. As we read the transcriptions from the focus groups and interviews, we separately identified themes in the data. We first coded the data by looking for impact on each of the major stakeholders: the students, the teacher candidates, the cooperating teachers, and the school as a whole. We noted some consistent responses across the four focus groups: school leaders, special education cooperating teachers, general education cooperating teachers, and teacher candidates. Using grounded theory (Glaser & Strauss, 1999), each of us separately identified themes and sorted the interviewees' comments across the stakeholders by those themes. Periodically, we met and discussed our rationale for theme identification, shared our perceptions of why certain comments related to certain themes, and moved toward consensus.

Three faculty members reviewed the teacher candidates' performance assessment that entailed designing a three to five week unit of study, implementing instruction, and analyzing learning gains. Faculty members examined the data analysis section of the performance assessment—reviewing the disaggregated data on learning gains to determine whether students with special needs and English language learners were able to successfully obtain content in the teacher candidates' classrooms. In the next section, we report these data.

Trustworthiness and Bias

As discussed earlier, we carefully used triangulation of data sources—using both individual and each of the other stakeholders' perceptions of the effectiveness of the model as comparison—to strengthen the reliability and validity of the findings (Wiersma, 2000). After the first year, the original principal who had initiated the partnership retired. While this was unfortunate, it also enabled an additional "less invested" perspective in the focus group with the new principal and vice principal who inherited the partnership. In addition, by intentionally enlisting a doctoral student, unaffiliated with the research, to separately code and discuss data, we believe we were able to avoid potential bias in the analysis and identification of significant themes.

Findings. We identified five themes across all of the various stakeholder groups' responses: (a) specific strengths of program design including the benefits to the whole school; (b) the cooperating teachers' growth; (c) the additional help for students with special needs; (d) the positive relationships teacher candidates developed with middle school students; and (e) teacher candidate/cooperating teacher collaboration. Table 2 indicates the frequencies of coded responses that reflect each of the themes that emerged across the 120 comments. In the next section, we describe the themes in more detail and provide illustrative quotes.

Program Design

More than a third of the coded responses revolved around the strengths of program design. In particular, the benefits of teacher candidates remaining onsite for two years were a recurring theme. The comments ranged from teacher candidates becoming part of the community, contributing ideas and resources to the school, conducting whole school one-on-one reading and writing assessments, writing grants for a school garden, running a service learning day, and their contributions from the special education lens into the general education classrooms. Across the focus groups, members also discussed the benefits, for both the cooperating teachers and teacher candidates, of being in a school where instructional coaching labs, routine walk-throughs, and targeted observations were taking place on a routine basis. One teacher candidate reflected on how the school staff embraced them as part of the school community, it "required more teachers to be involved and more collaboration to happen and

Table 2
Frequency of Coded Responses across Themes (n = 120)

Themes That Emerged	Frequency of Response	%
Strength of SDEP design	53	46
Growth for cooperating teacher	35	29
Extra help for students with special needs	25	21
Positive relationship between teacher candidates and middle school students	13	11
Collaboration among teacher candidates and cooperating teacher	14	12

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immediately brought us into the community. Here we walk around the halls as members of the team" (Joe, Teacher Candidate Focus Group, May 27, 2012). Another teacher candidate noted:

> The walk-throughs have literally opened the door to the whole pool of knowledge and skills that other professionals have, that they go about teaching content and supporting the students, a gem of an experience, taking some of those small little experiences, they have added to my collection. (Ellie, Focus Group, May 27, 2012)

An administrator echoed that sentiment:

> Having the group here together for two years allowed for a cohesive picture of the inservice and staff development that happens in the building, as well as being able to provide some different opportunities for the group as a whole, participation in the walk-throughs and the labs.... I think it was good for them and good for us as well, sort of opening our doors to instruction, that's what we do, and having some interested parties coming through, often, I think is helpful for both. (School Leader Focus Group, June 9,2013)

A social studies teacher noted the power of the two-year extended field experience:

> Being here in the building for two years, knowing how this building functions, knowing just what the structures are, everything like that, when he stepped in to take over the class, he knew everything. Everything was in place, he was able to be confident, and actually just more focused on his lesson planning and making sure that he was teaching rather than thinking about all the peripheral things that happen in the building as well. (Tina, Cooperating Teacher Focus Group, June 9, 2013)

Teacher candidates felt welcomed, comfortable, and included as legitimate members of the school faculty.

Cooperating Teacher Growth

Participant responses highlighted the impact of the collaborative partnership on the cooperating teachers. Thirty-five of the 120 coded responses noted positive experiences for the cooperating teachers. These comments ranged from references to increased reflection, renewal, "rebirth," gaining new ideas and resources, and learning how to better differentiate for the wide range of learners in their classrooms. They noted how cooperating teachers learn how to be stronger mentors and teacher leaders through this process. All three stakeholders groups identified the benefits for cooperating teachers. One of the administrator's goals in approaching the university as a partner was his desire to build teacher leaders among the faculty. They wanted their veteran teachers to become stronger teacher leaders. Many cooperating teachers validated that desired sense of professional growth. One cooperating teacher observed:

> That was a really invaluable experience for me to learn to coach them, and take on this very different role of not being the planner, not being the person in charge of doing the lesson plans, doing the assessment, doing the instruction, but being the collaborator and the coach ... that was for my own professional development, a really unique way to learn. (Jenny, Cooperating Teacher Focus Group, June 9, 2013)

Other cooperating teachers commented on the boost in self-confidence that the opportunity to mentor another teacher provided. For example, the Spanish teacher responded:

> You know what? I have skills and strategies that are useful to other professionals. I don't think I ever really saw that. Even though I had student teachers before, I really think this model brings that out in people ... I really do know what I'm doing. And that feels really good ... on a very personal level it boosted my confidence as a teacher. (James, Cooperating Teacher Focus Group, June 9, 2013)

All three stakeholder groups discussed the increase in metacognition on the part of the cooperating teachers as a part of this process. The principal noted:

> Teacher candidates coming as a group and being really open to learning together, at the very least helped their mentor teachers be more open with their own practice and learn how to talk about both strengths and weaknesses of their own practice. (School Leader Focus Group, June 9, 2013)

Because the program design used an apprenticeship model and co-teaching instead of a solo experience, it allowed cooperating teachers more opportunity to employ various coaching strategies. The instructional coach commented specifically about this feature of the model, "It is not asking our strongest to leave, it is actually asking our strongest to stay and giving them

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tools to interact with their teacher candidates and even our own students in a more metacognitive way" (School Leader Focus Group, June 9, 2013). Another cooperating teacher captured the cooperating teachers' opportunity to grow through coaching:

> When you're in a coaching role with a teacher, it forces you to look at the why behind your practice, and when you've been doing it for so long, it's just kind of the assumption that this how you do it, and there's so much a part of teaching is intuitive. But when you're really forced into having to look at that "why," it made me kind of re-think some different pieces as well, and it impacted my approach in different ways with student learning. (Mary, Cooperating Teacher Focus Group, June 9, 2013)

The teacher candidates were able to recognize that growth in their cooperating teachers as well:

> Because we (teacher candidates) are reflecting all the time, they (cooperating teachers) are able to reflect a little deeper on their own practices and their own teaching and their own differentiation and scaffolding. They are able to look deeper into their lessons because we're talking about the lessons that I'm teaching, about what works and what didn't, and what we need to do for their students. (Henny, Teacher Candidate Focus Group, June 9, 2013)

A number of both the special educators and the general education teachers commented on the specific skills and gifts that the teacher candidates brought to their practice. The health teacher noted, ". . . just learning their pieces of scaffolding from a special education lens in a general education classroom that's just good teaching was really helpful to me" (Raul, Cooperating Teacher Focus Group, June 9, 2013). A special education teacher offered, "they not only learned to teach but also helped us learn to teach . . . they have made us reflect on our own practices as we are trying to help them reflect on their practices" (Samantha, Cooperating Teacher Focus Group, May 25, 2012). When the school leaders originally requested the partnership, they were interested in helping their cooperating teachers be more receptive to the idea of small group differentiated instruction. At the end of the two years, the principal noted:

> The small group instruction, I think, is one of the biggest perks for our students but also for teaching, which probably comes up later. We've really been wanting to have teachers do more small group and differentiation; having the teacher candidates here has allowed that to happen more. (School Leader Focus Group, June 9, 2013)

Numerous times, interviewees mentioned the value of seeing the middle school students from different perspectives. One of the teacher candidates noted:

> And if we can give them (the cooperating teachers) a little bit of a flashback to their learning and some of the new things that are going on in education that maybe they haven't had as much coaching on . . . having us in there, I think we made them better teachers. I mean, I think it helped. I think it helped them to look at students through a different lens. (Henny, Teacher Candidate Focus Group, May 27, 2012)

The cooperating teacher seems to validate and expand on the teacher candidate's perception. One of the language arts teachers commented that it was through working closely with the teacher candidate, she was able grow in her ability to reach more students:

> They can see a student slightly differently; maybe they have found the love for a student that I haven't been able to find yet. So being able to see a student through their lens has been so wonderful that I've been able to connect with kids in a different way because of that. So yeah, it's been very positive with my own learning as a professional. (Jenny, Cooperating Teacher Focus Group, June 9, 2013)

Increased Help for Students with Special Needs

The increased assistance for students with special needs was evident in 25 of the 120 coded responses. The extra adults enabled more small-group instruction. They brought to their special education placements some fresh ideas and energy and extra hands enabling smaller group instruction and options for one-on-one experiences for certain students. The teacher-student relationships developed in the special education room the first year carried over into their experiences with the same students in their general education classrooms the next year. Teacher candidates brought extensive special education training to their general education placements during the second year, enabling them to help general education teachers incorporate more universal design strategies and differentiation into their practice, as well as specific knowledge about the special needs of students they knew from the year before. We identified one measure of the impact of teacher candidates on student learning in disaggregated learning gains data from the eight teacher candidates'

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Table 3
Middle School Student Learning Gains

TC Name	Content Area	Learning Gains Data from Spring Unit of Study	
Henny	Language Arts	ELL	54%
		SPED	41%
		Entire class	31%
Don	Language Arts	ELL	56%
		SPED	43%
		Entire class	41%
Ellie	Health	ELL/SPED	51%
		TAG	60.5%
		ELL	35.5%
		Entire class	53%
Tyson	Social Studies	ELL	40%
		SPED	55%
		Entire class	51%
Joe	Social Studies	ELL (one student made no gains)	58%
		TAG	100%
		SPED	77.5%
		Entire class	88%
Julius	Social Studies	ELL	85%
		SPED	80%
		Entire class	90%
Martin	Spanish	ELL (Russian speaker in Spanish class)	18.4%
		SPED (Russian speaker on an IEP)	-4%
		Entire class	26.5%
Marshall	Language Arts	ELL	90%
		TAG	100%
		SPED	82%
		Entire class	84.5%

spring student teaching placements (see Table 3). For novice teachers teaching middle school students for the first time in large classes, the learning gains data reflect successful implementation of universal design for learning and differentiated assignments. The principal observed:

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> The greatest impact is the adult-to-student ratio changed tremendously. Here came eight more adults eager to connect with kids, work with kids, talk with kids, get to know kids, and then apply their own practices they learned as emerging teachers. (School Leader Focus Group, June 9, 2013)

A social studies teacher confirmed this observation:

> When we're doing an assignment, we're able to break kids into groups by ability and they can work with and modify the test and help students with needs on projects as well as on tests, and we can go around and cover, there is more instant help for the students in the classroom. (George, Cooperating Teacher Focus Group, June 9, 2013)

The health teacher agreed, ". . . just learning their pieces of scaffolding from a special education lens in a general education classroom that's just good teaching was really helpful to me" (Raul, Cooperating Teacher Focus Group, June 9, 2013). A seventh-grade girl who had worked with the teacher candidates during their special education placements while she was in sixth grade and then had teacher candidates in her social studies classroom the second year commented on the difference in her performance in social studies between sixth and seventh grade. She explained:

> It felt weird. Last year I didn't get as much help as I needed and then when Mr. L. and Mr. W. came in I got my grades up to an A, B and C. In social studies last year, I had an F. It helped me get my grades up by having the teacher candidates in my classroom. (Sandy, Student Interview, June 9, 2013)

As noted above, the eight teacher candidates completed teacher performance assessments the last quarter of student teaching as part of the state licensure requirements. The assessment entailed the design and implementation of a three- to five-week unit of study, including conducting a pre- and post-assessment to measure learning gains, and completing an analysis of efficacy and student learning. The research team examined the data analysis section of each of the eight performance assessments, specifically for the disaggregated data of learning gains for middle school students with special needs (see Table 3 for a summary of the learning gains). Although the students with special needs were rarely the top performers on the post assessments, in most cases, they made the largest overall learning gains. This included some homeless students, many English language learners, as well as students with various learning challenges. For example, in the health class, the average learning gains for all students was 53%. For the students with special needs, the average learning gains were a little higher at 55%. The one exception was a Russian-speaking student on an IEP in a Spanish classroom, who did not show any learning gains. However, the teacher candidate explained the context of that student's life made learning Spanish particularly difficult.

Relationships Developed between Teacher Candidates and Students

Cooperating teachers and school leaders noted the special relationships teacher candidates developed with middle school students both inside and outside the classrooms. Cooperating teachers mentioned teacher candidates' fresh perspectives and ability to reach students who they were unable to reach. One of the language arts teachers commented, "I find just having another adult in the room gives the students an opportunity to bond with a different adult" (Mary, Cooperating Teacher Focus Group, June 9, 2013). The vice principal noted the significance of, ". . . one-on-one interactions the kids had with teachers that they simply would not have had because of the numbers" (School Leader Focus Group, June 9, 2013). A social studies teacher agreed, "Kids have two teachers, two different styles to learn from, two teachers greeting them at the door. That makes kids feel supported and therefore supports kids" (Tina, Cooperating Teacher Focus Group, June 9, 2013). In a separate interview, the vice principal reaffirmed:

> I just get the benefit of hearing so many stories about individual connections with kids, not necessarily around academics, but some sort of social connection, or just a connection at all between an adult and a kid . . . you know, a student saying something to a teacher candidate on their way out the door. Then they have this little bond, and the teacher candidate's able to follow up with that kid, and really focus on the relationship, because of how they see their role here; enough of those happen and you get a bigger bang for it. (School Leader Focus Group, June 9, 2013)

Teacher candidates functioned as role models for the students. A special educator commented about the benefits for her students on the autism spectrum, "As they see these teachers learning . . . as they see me pausing the class and redoing something, they see, "Oh, I get a redo in life. Thank you!" (Karen,

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Cooperating Teacher Focus Group, May 25, 2012). A seventh-grade male student with special needs affirmed the potential of teacher candidates as role models when he announced, "I want to be a teacher." (Charlie, Student Interview, June 9, 2013)

Collaboration between Teacher Candidates and Cooperating Teachers

In addition to the benefits of teacher candidates' relationships with students, all stakeholder groups also spoke of the relationships between the teacher candidates and the cooperating teachers. They noted the power of collaboration that occurred through co-planning and co-teaching throughout the program. Together they were able to provide a stronger learning experience for their students and many times re-energizing the cooperating teacher through the process. One teacher candidate observed:

> Just to be around teachers who are so passionate about what we're doing, so involved and so excited. It was a really fresh awakening for them (cooperating teachers) to see that and also have a new wave of inspiration for why they became a teacher in the first place. (Henny, Teacher Candidate Focus Group, June 9, 2013)

The Spanish teacher admitted to the initial struggle of releasing control over his classroom but the ultimate benefit of working collaboratively. He disclosed:

> It's hard for me at first because I am the lord and master of Mr. N.'s class and the way it's done is my way. But having another person's perspective —we split things up; I have 3 preps, he took one prep of 3 classes, and I still continue to teach mine, so I still have my thumb on some of them, but it was good for me to sit back and watch somebody else and see how somebody else's mind works. (James, Cooperating Teacher Focus Group, June 9, 2013).

The ability to co-plan came up a number of times in the focus groups. The vice principal noted:

> Because there were two people, they held each other accountable to that daily planning and reflection of lessons. We saw lessons first period that didn't go very well and by 6th period, they look really different. I think that definitely has an impact on student achievement. (School Leader Focus Group, June 9, 2013)

One of the language arts teachers noted:

> It really allowed for an exchange of ideas and perspectives that ultimately impacts the students because I mean, that's our goal. But the scaffolding and all of those pieces fall into place when you have more than one brain looking at it. (Jenny, Cooperating Teacher Focus Group, June 9, 2013)

An unexpected benefit of the collaboration was that both the teacher candidates and cooperating teachers acted as adult role models for many students growing up in difficult home situations impacted by poverty. One teacher candidate observed, "Students see a mutual respect for adults and for students, healthy relationships. We model listening to what others have to say. A lot of times students don't get to see that." (Ellie, Teacher Candidate Focus Group, June 9, 2013)

Limitations

A variety of factors make generalization of this study problematic. The school's turmoil during the two years of the study with numerous changes in personnel, school structure, and curricula made this study particularly challenging to allow for any claims to causal relationships. It is also the case that this study represents a partnership between a single middle school and a small specialized program housed within a larger school of education with more than ten initial preparation programs. Additionally, we cannot overemphasize the important role of (a) the special culture of this particular school in which teachers were so open to deprivatize their practice, and (b) the uniqueness of this particular teacher education program. Few graduate programs in the U.S. allow for two full years of field experience in both special and general education.

Discussion

The literature discussed the need for strong field placements (Greenberg, McKee, & Walsh, 2013, p. 4). It also demonstrated the need for general education teachers to learn more about inclusive and collaborative practices to better reach students with special needs in the "least restrictive" environment as mandated by law (Blanton & Pugach, 2011; Griffin & Pugach, 2007; Roth & Tobin, 2001). The purpose of this study was to identify potential benefits and drawbacks for both the school and the university in the development of a partnership focused on helping students with special needs in inclusive classroom settings. The data suggest that collaboration with teacher candidates may have helped cooperating teachers develop increased skill

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with providing scaffolds and supports for students with special needs in general education classrooms. Returning to the original research question, we offer tentative conclusions.

We wanted to know what cooperating teachers, teacher candidates, and school leaders identified as the benefits and drawbacks of the school-university partnership. We did not expect such an overwhelming consensus on the value of the partnership for the cooperating teachers. Other studies have shown the positive influence of such collaborative partnerships on student learning (Bacharach et al., 2010), teacher candidate learning (Howell et al., 2013; Rigelman & Ruben, 2012), or teacher educator learning (Martin et al., 2011); yet, more evident in this study were the benefits for the cooperating teachers. School leaders, special education cooperating teachers, content cooperating teachers, and teacher candidates, independent of each other, discussed the growth in cooperating teacher and the resulting benefits for the middle school students. We cannot overstate the importance of increases in self-confidence, renewal, and reflection on the part of the teachers (Jeffery & Polleck, 2010; Valli, 1997) as this fosters continued professional growth and the development of teacher leaders. This was a major goal for the administrators when first approaching SDEP regarding the partnership; it is satisfying to realize this accomplishment.

We were surprised to find a consensus among all school leaders and cooperating teachers as to the positive consequences of the partnership for their school. Each of the cooperating teachers expressed a desire to have another teacher candidate and to continue the partnership with a new group of teacher candidates the following year. Although there were times during the two years when the eight teacher candidates felt they were being asked to work harder than their other cohort members, they all acknowledged the tremendous opportunities they were given by working in a school with a culture where teachers openly and enthusiastically participated in frequent collaboration and ongoing professional development. The administrators and cooperating teachers discussed a deeper understanding of inclusive practices because of this collaboration. They found that working with dually-prepared teacher candidates led to more differentiation and small group instruction than if they had continued their work in isolation. Blanton and Pugach (2011) predicted the impact of teacher candidates who have special training in inclusive practices.

In addition, we examined how struggling middle grade students achieved while in this school-university partnership. Although we were unable to obtain standardized test data on the particular students served, the disaggregated learning gains data from the units of study taught by the eight teacher candidates in spring 2013 demonstrate success for students with special needs in content classrooms. In all but one case, students on IEPs and English language learners made solid learning gains. In four of the eight teacher candidates' classrooms, struggling readers actually had larger learning gains than their respective class average. Furthermore, the middle school students interviewed discussed improvement in grades in their content classes over the course of the two years working with the teacher candidates. One student went from receiving Ds and Cs to a B in social studies. She attributed that gain to the help the teacher candidates provided her. Both students we interviewed in June 2013 indicated stronger confidence in their readiness for eighth grade and beyond, as well as a clear appreciation for the added support the teacher candidates offered over the course of the two-year program.

Conclusion

In 2010, the authors of the *Blue Ribbon Panel on Clinical Preparation and Partnerships* (NCATE, 2010) called for expanding the knowledge base on effective practices in teacher preparation. The present study contributes to that knowledge base. The implications of this research are important for schools and districts to understand. In the beginning of the article, we stated our interest in demonstrating to school district administrators and individual school personnel the potential benefits of opening their doors to clusters of teacher candidates working together with school staff to collaboratively grow professionally. Stakeholders including school leaders, cooperating teachers, and teacher candidates identified tremendous benefit gained through this collaboration. The school faculty embraced the teacher candidates, who helped to fill a gap in human resources necessary to reach their struggling learners in large general education classrooms. Providing the school with eight energetic skilled teacher candidates with deep knowledge of inclusive practices and a desire to build relationships with middle school students was an asset. High poverty school administrators should establish relationships with teacher education programs and together partner to improve student learning. Rather than avoiding what many districts perceive as a burden, schools should recognize the benefits of hosting as many teacher

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candidates as possible as it both invites teacher collaboration and ongoing teacher learning and makes the job of teaching large diverse populations of adolescents more manageable.

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Appendix A

SDEP Visual Schedule for 2011–2013

YEAR 1 of 2

	FALL TERM	WINTER TERM	SPRING TERM	SUMMER
Core Coursework	• ED 580: Adolescent Learners in Inclusive Settings (2) • SPED 571: Adolescents with Learning Differences (2) • CI 514: Multicultural & Urban Education (3) • ED 581 Inclusive Classroom Researcher (2) • ED 582: Collaborative Teaming & the SPED Process (4)	• SPED 528: Instructional Methods: Literacy Instruction (3) • SPED 529: Instructional Methods II: Math and Content Area Instruction (3) • ED 583: Study Skills & Learning Strategies (2) • SPED 513: Classroom-Based Assessment (3) • ED 584: Advocacy & Transition Planning (2)	• SPED 512: Diagnostic Assessment (3) • SPED 521: Behavior Management (3) • ED 507: Seminar I: Work Sample Support (1)	*Summer sessions 2 & 3 starting in mid-July* • CI 543: Effective Teaching Strategies and Materials for Working with Linguistically and Culturally Diverse Learners (3) • SPED 510: Functional Assessment & Curriculum I (3) • SPED 536: Specialized Techniques (3)
Field Experiences	ED 509: Initial Field Experience (3)(9 hours each weekin a school)	SPED 509: Practicum: Supervised Teaching Experience (3) (seminar embedded) (9 hours each week in a school)	SPED 525: Student Teaching (SPED—half-time) (6)(20 hours each week in a school)	
	16 credit hours	16 credit hours	13 credit hours	9 credit hours

YEAR 2 of 2

	FALL TERM	WINTER TERM	SPRING TERM
Core Coursework	• CI 519: Special Secondary Methods (4) • ED 585 Instructional Planning for Inclusive Classrooms (4) • ED 586: Collaborative Teaching (2) • SPED 510: Functional Assessment & Curriculum II (3)	• CI 548: Advanced Secondary Methods: Specialty Area (4) • CI 511: Classroom Management (2)	• ED 587: Inclusive Educational Research & Leadership (2)

(*Continued*)

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(Continued)

YEAR 1 of 2				
	FALL TERM	WINTER TERM	SPRING TERM	SUMMER
Field Experiences	SPED 509: Practicum II with supervision (3) (SPED and content area) (9 hours each week in a school)	CI 525: Student Teaching (Inclusive setting) (6) (20 hours each week in a school)	CI 525: Student Teaching (12) (Full-time experience in Inclusive setting)	
	16 credit hours	12 credit hours	14 credit hours	

Appendix B

Administrator, Teacher Candidate, and Cooperating Teacher Focus Group Interview Protocol

1. How do you think the Stream Learning Lab Collaborative Partnership has impacted student learning? Please provide an example of a way it has positively/negatively impacted student learning.
2. How do you think the Stream Learning Lab Collaborative Partnership has impacted teacher candidate [your] learning? Please provide an example of a way it has positively/negatively impacted teacher candidate learning
3. How do you think the Stream Learning Lab Collaborative Partnership has impacted cooperating teacher [your] learning? Please provide an example of a way it has positively/negatively impacted cooperating teacher learning.
4. How has collaboratively planning with your cooperating teacher/teacher candidate/instructional coach influenced your teaching practice?
5. How have targeted observations influenced your teaching practice?
6. How have instructional walk-throughs influenced your teaching practice?
7. How have learning lab experiences with instructional coaching influenced your teaching practice?

Appendix C

Middle School Student Interview Protocol

1. How do you see yourself as a reader?
2. What was the last book you read for fun?
3. On a scale of 1–5 (1 being reading is really hard to 5 being reading is fun and enjoyable and easy) where would you rate yourself? Describe why you gave yourself that rating.
4. What was it like to have multiple teachers working with you in reading strategies across the day?
5. Can you describe some specific ways that teachers helped you be more successful as a reader?
6. Did you feel supported? If so in what ways?
7. Was there anything that felt frustrating or difficult with having so many different teachers working with you?
8. Do you have any suggestions as to how to make the classroom run more smoothly with all these teachers?

(Add the following for last interview only)

1. What are some things that have helped make you more successful in your classes this year?
2. What are some things that make you feel ready for high school?

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