Collaboration Opportunities within University Teacher Education Programs

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Abstract
Collaboration is the key to successful teaching. In today’s school environment, interdisciplinary teams of professionals serve student needs. In order to make positive strides in social, behavioral, and academic learning, education professionals must work together in a collaborative model for service delivery. In particular, collaboration is indicated as a powerful tool for helping special education teachers who serve students with special needs. However, this collaborative skillset cannot be isolated alone to special educators. Indeed, the word collaborative itself indicates that some sort of relationship must exist to create the pathways of communication necessary for success. Hence, the repertoire of knowledge and skills for successful collaboration should be developed for both general and special educators. Here at Jacksonville State University, all teacher candidates are provided opportunities to develop knowledge and skills by collaborating with peers in activities and projects designed to benefit P-12 students.

Keywords: collaboration, special education, teacher education

1. Collaboration Opportunities within a University Teacher Education Program
The concept of collaborative practice is based on the premise that successful teaching relies on the expertise of everyone involved in the learning environment (Brownell, Adams, Sindelar, & Waldron, 2006). Collaborative techniques include planning, implementing instruction, assessing, and then communicating about student learning in order to repeat the process in a continuous leverage for increased achievement. In this way, collaboration becomes a co-teaching partnership. Most often, this type of collaborative co-teaching is found within the relationship between general and special educators (Friend, 2007). In its truest form, collaboration is a complex skill that requires commitments of time, energy, and patience to implement. Active collaboration not only demands knowledge but application of its elements and structure in co-teaching relationships. In order to purposefully develop collaborative skills and establish a conduit for future professional dispositions for all early childhood/elementary and special education majors, Jacksonville State University (JSU), a regional institution located in northeastern Alabama, provided program embedded collaborative opportunities for teacher candidates.

Teacher preparation programs have a responsibility to prepare teacher candidates (TCs) for teaching in today’s fast-paced, interdisciplinary, technologically advanced, diverse, high-stakes classroom settings. The Council for Accreditation of Educator Preparation (CAEP) outlined five standards for Education Preparation Providers (EPPs) to meet in effective programming: 1) Content and Pedagogical Knowledge, 2) Clinical Partnerships and Practice, 3) Candidate Quality, Recruitment, and Selectivity, 4) Program Impact, and 5) Provider Quality, Continuous Improvement and Capacity (caepnet.org). Specifically, CAEP Standard 1, Content and Pedagogical Knowledge, directly addressed the need for the EPP to provide TCs ample opportunities to work together in collaborative environments to impact P-12 student learning. Furthermore, CAEP Standard 1 expects EPPs to provide opportunities for application of content and pedagogical knowledge as outlined in Specialized Professional Associations (SPA). Undergraduate initial certification programs at JSU include early childhood/elementary and special education collaborative teacher. Standards associated with each SPA area are mapped into the program designs and quilted through the methods courses and clinical experiences. As a key element of becoming a professional educator, collaboration runs thematically throughout the associated SPA standards.
Respectively, the early childhood/elementary program include National Association for the Education of Children (NAEYC) standards and Association for Childhood Education International (ACEI) standards; the special education collaborative teacher program includes Council for Exceptional Children (CEC) standards. In each of these three SPA areas, threads of collaboration can be uncovered. NAEYC Standard 6: Becoming Professional, references collaborative relationships in 6c: “Engaging in continuous, collaborative learning to information practice; using technology effectively with young children, with peers, and as a professional resource.” The collaborative opportunities in the early childhood/elementary program give rise to the ability to develop a perspective of value toward continuous peer learning through collaboration. ACEI Standard 5: Professionalism, references collaborative relationships in 5.1: “Professional growth, reflection, and evaluation: Candidates are aware of and reflect on their practice in light of research on teaching, professional ethics, and resources available for professional learning; they continually evaluate the effects of their professional decisions and actions on students, families, and other professionals in the learning community and actively seek out opportunities to grow professionally; 5.2: Collaboration with families, colleagues, and community agencies: Candidates know the importance of establishing and maintaining a collaborative relationship with families, school colleagues, and agencies in the larger community to promote the intellectual, social, emotional, physical growth and well-being of children.” In this standard, the ultimate goal is to help TCs understand that collaboration is a leverage resource for the shared responsibility of community stakeholders in promoting whole-child development. Naturally, the CEC standards are overflowing with collaborative elements. Specifically, CEC Standard 7: Collaboration, includes 7.1 “Beginning special education professionals use theory and elements of effective collaboration, 7.2 Beginning special education professionals serve as a collaborative resource to colleagues, and 7.3 Beginning special education professionals use collaboration to promote the well-being of individuals across a wide range of settings and collaborators.” This CEC standard clearly expresses that collaboration is a key element for advancing the education and welfare of students with special needs and that special education teachers do not bear this responsibility alone.

1.1 Development of Collaborative Habits

Given that professional standards urge EPPs to establish opportunities for collaboration, most teacher preparation programs include collaborative elements in program plans. However, collaboration cannot merely be studied in a textbook or left for the clinical setting to further develop. Teacher education programs are generally intensive on methods courses that may teach the basics of collaboration and as a result, there may be gaps in opportunities to apply such collaborative skills until TCs are placed in clinical settings. Even then, the TC’s may be minor players in collaboration, mostly planning with their Cooperating Teachers (CTs), and if they are fortunate, related services providers and support personnel the CT collaborate with over the course of the semester.

Knowing that continuous peer learning and collaborative teaching methods are desired dispositions for professional educators, JSU professors envisioned how future professional personas could be developed using collaborative methods for TC development. Accordingly, professors designed opportunities for all TCs to gain knowledge and apply skills in collaboration and co teaching. Through a social constructivist theoretical base, JSU TCs are given opportunities to learn from and with one another, build professional relationships, and develop a shared responsibility for P-12 student learning. The development of this collaborative relationship evolved over time, with each program faculty noting needs and gaps in collaborative opportunities. Each program included intensive methods courses and abundant hours of clinical experiences prior to the full-time internship semester.

In fact, TCs served approximately 450 clock hours in authentic P-12 settings with cooperating teachers and other education professionals. However, the faculty determined that relying on these clinical experiences to build collaborative skilllets among all TCs was not a realistic goal. Rather, the faculty strategized to purposefully embed multiple collaborative opportunities within and across programs. As a result of faculty collaboration and modeling, the TC’s engaged in social constructivist learning through collaboration on co teaching projects during classes, in workshop opportunities for interdisciplinary learning, and exercises in concepts of the student learning cycle using collaborative simulations, mock role play, and interactions with professionals outside of the education programs. These collaborative experiences occurred regularly with early childhood/elementary and special education TCs. In addition, TCs interacted with peers across the two programs, with graduate students in education and computer science, and faculty and students from local P-12 schools.
2. Collaboration Opportunities among the TCs in Special Education

Each program area offered robust opportunities for collaboration within its methods courses and practicum experiences. The progression and rigor of the special education program was designed through collaborative efforts of faculty with expertise in multiple domains of special education. Part of the collaboration efforts between professors included looking for opportunities to embed meaningful collaborative exercises within certain methods courses. The special education TCs progress through the program in three semester blocks themed toward service delivery for specific special education settings. The first block centers on collaborative elementary K-6 in a mild setting, the second block builds upon the first by focusing on collaborative 6-12 secondary in a mild setting. The third block centers around teaching students with severe disabilities across a K-12 curriculum. Blocks include three methods courses and one 150-hour practicum experience in the appropriate setting. The final semester of the program consists of a full Internship (student teaching). Internship may take place in any of the settings and includes two placements: one in K-6 and another in 6-12.

Since the special education program is formatted into blocks, and the progression is seamless from one themed area to the next, it eased the implementation of meaningful collaborative exercises for the TCs. For example, in the first block, TCs learned the foundations of special education and explored the elementary collaborative mild setting. Part of this block includes courses in legal, medical, and ethical issues along with an SPE Administrative Processes class. Within this block, TCs collaborated to develop mock Individual Education Plans (IEPs) and participated in planning and co teaching simulation exercises that included creating an interdisciplinary student action team and due process experience. In the second block, TC’s dug deeper into collaboration in the secondary setting. This block included opportunities for collaborating with their peers and local area high schools with transition related issues and experiences with high school students with special needs that are facing transition to post-high school life. In the third block, there is a focus on severe needs and behavior analysis. Behavioral Intervention Plans (BIP) is created in the Classroom Management and Behavior Analysis class. In this experience, TCs design a BIP with collaborative input from their peers. The special education TCs also took a class in methods for Autism Spectrum Disorders. This class experience included many different points of collaboration in and out of class. For example, the special education TCs read a selection of ASD related books in a jigsaw-style book club format and collaborated with their special education peers to share information gained from the readings. The TCs in the ASD course also collaborated with one another to design several conference and workshop presentations for local general and special education teachers and local education agency special education coordinators.

2.1 Transition University

The special education TCs also participated in an on-campus peer mentoring program called Transition University (TU). The TU program brings high school students ages 18-21 who have intellectual disabilities, autism, and other significant disabilities, to the university campus for community based learning experiences. TU lessons are based on transition needs and designed by special education TCs who are in their final semester of coursework and practicum experience prior to internship. In order to scaffold the collaborative experience and give special education TCs a unique experience in understanding the dynamic collaborative relationship between a special education teacher and a paraprofessional, layered participation was built into the TU experience. The first semester of TU participation occurs in the special education TCs initial block of methods and practicum. This experience is limited to assistance with logistics for campus visits and TU safety protocols. Furthermore, TCs at this level formed relationships and built trust with TU participants. In the second semester of their preparation program, the special education TCs assisted in TU by serving in the role of paraprofessionals. In this role, the TCs learned the value of collaboration by pairing with senior special education TCs in their last block of methods and practicum. The senior special education TCs served as the teachers for TU with the paraprofessionals assigned to them. Prior to each session of TU, the mock para-educators and special education teachers met to collaboratively plan the TU activities. This meeting included a deep discussion of what would benefit each TU student during the lesson (i.e. more direct instruction from those teaching, or more initiated assistance from those in the role of paraprofessional). After each TU session, the TCs reflected on their particular role, including what went well, and what could be improved for the next TU session. Thus, the collaborative planning for TU capitalized on the cycle of student learning, giving opportunities for TCs to collaboratively achieve goals for students.
2.2 Undergraduate and Graduate Collaboration

Other opportunities for collaboration among special education TCs included collaboration between undergraduate and graduate teacher candidates. Since professors taught in both undergraduate and graduate courses, a need for increased work in Assistive Technology (AT) and Augmentative and Alternative Communication (AAC) was identified on the graduate side. In order to help shore up AT and AAC knowledge and skills in the initial certification graduate program, professors designed a collaborative experience in which undergraduate TCs planned and implemented an AT and ACC presentation for the graduate TCs. The program was facilitated by professors who led the undergraduates in designing the AT and ACC experiences and at the same time prepared the graduates to receive the information. In this way, the undergraduate TCs saw the value they can bring to relationships with other special education professions. The graduate TCs also understood that younger professionals were able to add relevancy to problem solving and issues relating to AT and ACC.

Collaboration between Special Education and Computer Science

In addition to the collaboration with other TCs in special education areas, a partnership was developed with several graduate students in the university computer science program. The purpose of this collaborative effort was to create educational digital applications for education. The APPS projects sought to design digital applications appropriate for all students, but especially students with special needs. Use of digital learning apps for instruction in academic subjects, social skills, communication, and transition is increasing as more schools integrate technology into the classroom (Flores et al., 2014; O’Malley, Lewis, Donehower, & Stone, 2014; Ploog, Scharf, Nelson, & Brooks, 2013). However, switch accessible digital applications tended to be limited to early learning, games, and cause/effect activities. Seeing the need for digital applications, especially switch accessible ones, the APPS project group regularly met throughout the academic year to discuss digital design and appropriateness of use for students. The computer science graduate students contributed the how-to ingenuity of designing the digital applications and the special education TCs contributed the knowledge necessary to differentiate process and product for students with special needs. In order to capitalize on the potential of the APPS project, the focus was on digital applications accessibility with state education standards focused capabilities. Thus far, three different types of digital applications emerged from this collaborative effort: a transition skills app, an eighth grade math standard app, and a 12th grade math extended standard app.

The transition skills app was developed as a vocational tool to assist high school or college students with special needs. Entitled the Resume’ App, this transition app includes vocational interest and skill-identifying questions via a drop down menu option. The ultimate goal of the Resume’ App is to provide a comprehensive picture of a student’s vocational interests, applicable skill sets, and special needs and to provide an avenue for individuals with significant disabilities to obtain employment. In 2010, the U.S. Bureau of Labor Statistics revealed that 19.2% of individuals with disabilities in the United States were employed in 2009 (American Public Human Services Association, 2010). That is a drastic comparison to 64.5% of nondisabled individuals employed. The numbers for individuals with significant disabilities is outstandingly smaller. This group of individuals is greatly underemployed in the workforce, not due necessarily because of their ability, but oftentimes bias about their ability. The Resume’ App seeks to help remedy this thought pattern and promote their skills. Using a teacher candidate generated data base, individuals with special needs can select, by keyboard or touch, skills that they believe they have a level of competence and areas in which they have interest. At the conclusion of the selections, a document, in the form of a resume’, is generated that is suitable for employers’ perusal. Individuals may select to complete the survey alone or with assistance, as indicated on the report. Ultimately, the Resume’ App could become a transition plan resource tool for special education teachers and coordinators. The two mathematics apps were designed using a universal design approach and activated by touch or accessible by switch. In these apps, embedded mathematics activities are tied to the state standards or extended standards. The apps would be appropriate for special education teachers to use with students with special needs based on their level of performance and specific differentiated needs. These three digital applications are prototypes and represent the fruitful promise of this collaborative effort.

3. Collaboration Opportunities among the TCs in Early Childhood/Elementary Education

The early childhood/elementary program area also offered rich opportunities for collaboration within its methods courses and practicum experiences. Faculty worked collaboratively to plan the program, including a pathway of foundations appropriate for early childhood learning experiences throughout sixth grade content knowledge.
In this program, TCs participated in themed blocks that scaffold on top of each other to create a rigorous conduit of teaching and learning across the curriculum. As in the special education program, the early childhood/elementary program professors designed purposeful opportunities for collaboration within and across programs. The early childhood/elementary TCs progress through the program in three themed blocks: early childhood (foundations, 21st century teaching, early literacy), literacy (reading, writing, assessment), and content (math, science, social studies). Each block embedded numerous opportunities for collaboration. For example, early childhood/elementary TCs in the early literacy course collaborated to design interactive bulletin boards and early numeracy/literacy centers. These projects included intensive discussion and application in the prekindergarten/Kindergarten setting with a loop back into the methods courses through collaborative discussions. TCs gave one another feedback based on collective learning and understanding about how early numeracy and literacy develop. Also, the 21st Century Teaching and Learning course was designed for early childhood/elementary TCs to collaborate on a number of projects, including review of digital applications and their use in improving P-6 student learning across various academic and behavioral domains.

Another collaborative project for the 21st Century Teaching and Learning methods course was to research and design a presentation on how digital applications could be used to moderate behavior in students with ASD. This research project was then shared in a workshop environment and to other educators through various state and regional conference opportunities. The literacy block methods featured multiple opportunities for early childhood/elementary TCs to work in mock interdisciplinary or grade level teams to solve problems relating to reading and writing. Scenarios, simulations, and data sets specific to challenges in reading and writing were given for TCs to solve collaboratively. These activities were designed for the early childhood/elementary TCs to apply literacy development knowledge across a spectrum of grades, performance levels, and content areas. In order to make these activities successful, TCs learned to put their collective knowledge into a collaborative effort with a goal to design solutions to the challenges presented. They then presented findings to their peers and received feedback on various strategies and multisensory approaches to literacy learning.

3.1 Collaboration and Cross-Disciplinary Methods

Early childhood/elementary candidates in the content methods block participated in a variety of integrated experiences in math, science, and social studies. Collaborative opportunities in this block included peer modeling of co teaching. Professors orchestrated such opportunities across the block and served as facilitators of learning while TCs implemented content area lessons with and for their peers. This co teaching process included multiple spaces for collaboration practice, from the pre-lesson planning to the actual teaching to peers as a co teaching exercise, and on to the reflection post-lesson. In this way, the early childhood/elementary TCs rehearsed the steps that go into a collaborative co taught lesson.

4. Collaboration between Early Childhood / Elementary and P-6 Faculty

Part of the early childhood/elementary program is a foundational course on classroom management. Although this course is not part of a block methods experience, it is nestled within the program and early childhood/elementary teacher candidates may take this course at any time during their block work. As a result, this course generally included TCs at the beginning, middle, and ending of their teacher preparation program. This lent natural opportunities for collaboration among the TCs so that differing levels of experiences from the various clinical settings and methods courses were shared. This class also participated in a collaborative blogging experience with a local school P-6 faculty. The faculty/teacher candidate partnership was designed as an online book club experience with books focused on current trend educational topics: student engagement, classroom management, and learning strategies. The TCs and a local P-6 faculty read the books and were grouped into online blogging communities with the early childhood/elementary TCs. Throughout the semester, the veteran teachers and TCs exchanged ideas, wisdoms, and impressions all stemmed from the reading. This collaborative effort was effective professional development for both the TCs and the veteran faculty. In this way, the TCs were able to contribute fresh impressions to renew veteran teachers’ attitudes toward teaching while the veteran teachers were able to help reduce the dissonance that sometimes occurs when TCs fail to connect theoretical knowledge to authentic classroom work.
5. Collaboration among the TCs in All Programs

Each teacher preparation program has unique experiences for both general and special education candidates to participate in collaborative activities and co teaching exercises. The undergraduate TCs in each program take courses and participate in clinical experiences for three full semesters prior to their final semester of internship. In each semester of coursework, the TCs collaborated outside of their respective programs in multiple opportunities.

To do this, professors collaborated across the programs and designed opportunities for the TCs to collaborate and develop projects and presentations on course topics. Collaboration and co teaching were modeled by professors in interdisciplinary methods workshops and guest teaching across programs. Professors designed synergizing experiences for TCs to learn to collaborate and understand the point of view and specialized expertise from each teaching field perspective. In order to make this high-level of collaboration work across the multiple teacher education programs, all TCs participated in studies to enhance their understanding of interpersonal relationships between general and special educators, including how those factors influence communication and co teaching. Then, the TCs had various opportunities to put their interpersonal skills into practice with their general and special education peers.

5.1 Collaboration as Professional Development

For example, in the Methods for Autism Spectrum Disorders (ASD) class, special education TCs collaborated to create digital timelines of ASD research and then co taught to present that along with behavioral strategies to their general education TC peers at the JSU Autism Mini-Conference. Special education TCs were viewed as the specialists for ASD, but effectively communicated that early childhood/elementary TCs needed ASD knowledge too. Furthermore, this specialized collaboration helped early childhood/elementary teachers get acquainted with resources for the communication, academics, and behavioral challenges associated with ASD (Gresham, Sugai, & Horner 2001). At the same time, early childhood/elementary TCs prepared information on Science Technology Engineering and Math (STEM) lessons. Early childhood/elementary TCs modeled STEM lessons and engaged the special education TCs through hands-on activities and mock model lessons. Through the STEM work, early childhood/elementary and special education TCs collaboratively worked through ways to differentiate STEM experiences in process and product for students with exceptionalities. Through this collaborative experience, early childhood/elementary TCs were viewed as the content experts while special education TCs contributed expertise on differentiation and the unique needs of students with ASD.

Each semester, all TCs participated in a Curriculum and Instruction Program Showcase. The program showcase is a special event in which all TCs showcased their knowledge through artifacts that represent their experiences in each of six methods blocks (collaborative elementary, collaborative secondary, severe methods; early childhood, literacy, content). TCs set up displays and professors facilitated a rotation so that all TCs visited each block area to collaborate and learn from their peers. During the showcase event, members of the university community, local school leaders, parents, and others are invited to participate. TCs were expected to discuss their semester work, explain the artifacts they choose, and connect all to P-12 student learning. This experience offered yet another unique collaborative opportunity for all TCs to learn about each others’ work, ask questions, and gather ideas for their own teaching repertoire.

5.2 Collaboration for Community Service Learning

Community service is another area for collaboration between general and special education TCs. Through collaboration with the Jacksonville Reading Council, a holiday-themed reading event, Reindeer Read, was designed. The Reindeer Read was set up as a service event and TCs chose to participate. The activity was planned by the TCs with help from participating professors. In the initial meeting for the event, the special education TCs immediately stated that they wanted to differentiate and prepare a sensory room for children with ASD and other special needs. Working together with different holiday-themed literature, the early childhood/elementary and special education TCs planned a comprehensive event for local area children. When the Reindeer Read event took place, children and parents were able to go between the different rooms and in a true inclusive fashion, each area’s activities were differentiated according to student needs. There were also opportunities for the special education and early childhood/elementary TCs to collaborate together for presentation workshops. Several special education TCs who were in internship returned to campus during the semester to conduct an interactive workshop for the early childhood/elementary TCs.
The presentations, titled *Included*, drew together knowledge and skills for working with students with exceptionalities. In the presentation, the interns shared information concerning students who fall in the range of the autism spectrum, strategies to be used for teaching math, reading, and for managing behavior. Halfway through the presentation, all participants were placed in six groups, with each group given the materials to conduct a kinesthetic activity appropriate for using with all students, but especially beneficial for students with autism.

The second half of the *included* workshop featured early childhood/elementary teacher candidates teaching the SPE interns and TCs some activities and strategies for teaching math and science based on the Next Generation Science Standards, Technology, and Math Standards. Special education and early childhood/elementary TCs collaborated together for a service-learning project. Through collaboration with professors and local area schools, the TCs were asked to create instructional materials for P-12 students with visual impairments and other exceptionalities. The teacher candidates were provided basic materials as might be available in a school setting (i.e. note cards, markers, tape, glue, file folders etc.) in addition to a few extra items such as sand paper and a glue gun. Working in collaborative groups, they were able to create tactile learning materials for the areas of Math (numbers cube with raised dots), Social Studies (US map with raised lines), and Language Arts (tactile ABC books). This service learning project synthesized multisensory approaches to learning, thereby giving TCs the opportunity to understand the types of materials needed to help P-12 students who are not able to use all their senses in a learning environment. The collaborative relationship between the special education TCs and early childhood/elementary TCs allowed the project to benefit from the combined expertise of both groups. Furthermore, this project gave all TCs the opportunity to contribute ideas and techniques through an interactive environment. The TCs were able to learn from one another and understand how general education and special education teachers must work together for the benefit of P-12 student learning.

6. Collaboration in Context

The goal of teacher education is to impact P-12 student learning through well-prepared and resourced teachers in every classroom. The use of finely tuned collaboration skills is one attribute teacher candidates can collectively develop through their program of study. CAEP Standard 1Content and Pedagogical Knowledge states that providers have a responsibility to ensure that candidates apply content and pedagogical knowledge in their respective teaching fields. Part of CAEP Standard 1 includes the expectation for candidates to demonstrate skills and commitment that afford all P-12 students access to rigorous college and career ready standards. Furthermore, the SPA expectations across early childhood, elementary, and special education teaching fields clearly discussed collaboration as a hallmark of a well-developed professional educator. By implementing a strong collaborative model that is embedded into the course of initial teacher certification programs, JSU offers TCs a robust pipeline to a strong professional disposition relating to collaboration. The collaboration models embedded within and across JSU program areas offer TCs the social learning atmospheres associated with constructivist theory. In these spaces, TCs were able to implement collaborative skills to relating to working in schools with interdisciplinary approaches, various models of special education, and co teaching. As the candidates learned more about themselves and engaged in role play, peer modeling, and co teaching with their peers, collaborative relationships became the expected norm of their teaching lifestyle and future professional persona.
References


