

Developing Pre-Service Teachers' Skills in Post-Secondary Transition Through Applied Practice

Rural Special Education Quarterly
2021, Vol. 40(1) 24–32
© Hammill Institute on Disabilities 2021
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/8756870520982300
journals.sagepub.com/home/rsq
SAGE

Kelly Ann Swindlehurst, PhD¹ and Ann Bassett Berry, PhD¹ 

Abstract

The need for special educators who can support students with disabilities in the transition to adulthood is well documented in the literature. In this article, we will report on the program improvement efforts by one university to embed more evidence-based transition practices into their pre-service teacher preparation program with the support of a state personnel development grant. Key aspects of the program revision will be outlined and accompanied by online resources for faculty to utilize when seeking to improve their special education preparation program in the area of post-secondary transition. The pre-service teachers' perceptions of the impact of the revision are included in the discussion; along with suggestions for future directions, research, and work in rural areas.

Keywords

transition planning, personnel preparation, rural special education

To provide increased access to the general education curriculum and successful post-secondary outcomes, all teachers of students with disabilities must design curriculum and goals related to the skills necessary for essential aspects of life after they graduate from high school: activities that promote increased inclusion in the community, foundational skills needed for independent living, and access to meaningful employment (Sanford et al., 2011). Despite this focus, many teacher preparation programs do not contain critical content and activities in post-secondary transition that would strengthen pre-service teachers' knowledge and skills (Benitez et al., 2009; Morningstar & Benitez, 2013; Morningstar et al., 2018). To that end, one Department of Education (DOE) in the Northeast was awarded a State Personnel Development Grant (SPDG) in 2012, which supported two Institutions of Higher Education (IHE) located in regions that were largely rural to improve their training of pre-service teachers (PSTs) in the area of effective transition practices. Initially, a set of competencies in transition was developed; subsequently, each IHE engaged in a series of steps to revise existing special education coursework to involve PSTs in each of the competencies. The overarching goal of the project was program improvement related to transition.

This article will outline one of the IHE's revision efforts with an intentional focus on the applied practice of the competencies by PSTs. The purpose of this article is to report on newly adopted practices in the courses within the graduate special education program to improve PSTs knowledge,

skills, and confidence with regard to transition. The project's aim was to improve not only PSTs knowledge but also their confidence in planning and engaging students in rural schools in effective transition activities; essential skills to have when aiming to positively affect the futures of students with disabilities (Morningstar & Clavenna-Dane, 2014; Morningstar et al., 2018). The outcomes of the improvement efforts on PSTs perceived knowledge and skills, as well as recommendations for special education preparation programs, will be discussed.

Literature Review

While state and national reports convey improved outcomes for students with disabilities once they leave high school, the data also indicate that to sustain this trend continued improvement is necessary (Test & Fowler, 2018). Teachers need to understand and be able to engage their students in evidence-based practice in transition: effective student-centered planning (e.g., self-determination activities, student focused IEP goals), family involvement, interagency collaboration, and the use of transition program structures

¹Plymouth State University, Plymouth, NH, USA

Corresponding Author:

Kelly Ann Swindlehurst, Plymouth State University, 17 High St Plymouth NH 03264, USA.

Email: kaswindlehurst@plymouth.edu

(e.g., extended learning opportunities [ELOs]; Test & Fowler, 2018).

One mitigating factor to sustaining improved transition outcomes for students with disabilities is the location of the school district. Rural practitioners and districts often do not have access to important training that is more readily available to teachers in urban and suburban districts. Rural districts often lack the resources to provide teachers with training in effective practices in post-secondary transition. Some districts are located in large, geographically isolated areas where professional development is difficult to schedule given the driving distances required. In addition to access to training, rural educators have significant challenges supporting the development of transition activities in their communities. Staff turnover, transportation issues, postsecondary training access, and limited community-based learning opportunities all negatively impact transition planning (Test & Fowler, 2018).

To offset these factors, IHEs can provide PSTs with opportunities to practice using evidence-based transition activities and develop solutions to the issues posed by teaching in rural areas. Such training has the potential to increase PSTs's reported self-confidence in utilizing research-supported transition practices. Unfortunately, recent research (Morningstar et al., 2018) indicates that the majority of the nation's teacher training programs deliver content in transition using passive types of learning methods (i.e., lecture and assigned readings). It is not surprising, therefore, that nationally PSTs report, while they feel confident in their understanding of post-secondary transition practices, they are unsure of their skills to involve students with disabilities in activities that would prepare them for their lives as adults once out of high school (Morningstar & Benitez, 2013).

Applied practice, on the other hand, is an effective instructional paradigm where students are asked to demonstrate their understanding of concepts and practice emerging skills in practical settings where they potentially or actually use them. Researchers have demonstrated that the use of applied practice is particularly effective in teacher training as it transforms the passive role of the learner from knowledge receiver to an active role where the learner demonstrates their understanding and makes the concept or skill part of their teaching repertoire (Darling-Hammond & Richardson, 2009; Showers & Joyce, 1996). Thus, it seems imperative that IHEs special education programs include course requirements that allow PSTs to apply their knowledge of evidence-based transition practices to their work with students in rural areas. Such essential teacher preparation opportunities have the potential to enable individuals with disabilities to plan for successful futures through involvement with high-quality transition services within the educational system, an increased level of family involvement in the process, and meaningful engagement in the rural community they are a part of (Kohler & Field, 2003).

Method

Context

One university, which is part of the state of New Hampshire university system, is located in a rural area in NH. The university offers courses in special education both at the undergraduate and graduate levels. In 2015, the university's special education faculty applied to be part of the SPDG grant that sought to increase the number of students with disabilities who graduated from high school, college and/or career ready, in NH. The larger project was called Next Steps New Hampshire: College, Career and Life Readiness (NSNH). NSNH attempted to bridge the limitations many rural schools and teachers face by providing professional development opportunities and developing statewide connections for transition educators in rural schools. For the IHE component of the SPDG project, special education faculty at the university were tasked with evaluating and revising its special education program with the aim of increasing PSTs knowledge and skills in post-secondary transition.

Special education programs. Successful completion of the post-baccalaureate Special Education program at the university results in cross-categorical K-12 special education licensure which can be combined with additional courses that lead to a master's degree in Education (MED). PSTs progress through courses using one of the two pathways: a 1-year intensive format or a slower paced program of study where PSTs can work and engage in courses as their schedule permits. PSTs in the 1-year program are often recent graduates from general education certification programs at the undergraduate level. These PSTs devote an additional year to coursework and a 9-month internship, where they apply the theoretical knowledge they are obtaining in their classes. PSTs in the slower paced program are generally non-traditional students who are working in schools with students with disabilities in a supportive capacity (e.g., paraprofessional, Title I Reading Tutor).

Training PSTs to support students with the transition to adulthood typically happens in one of the two ways. Either PSTs take a single course focused on transition or that content is embedded throughout the program. In the graduate program engaged in the program revision, faculty sought to have PSTs learn about, reflect on, and practice knowledge and skills related to transition planning throughout their coursework. Thus, the program improvement process involved revising not just a single course, but numerous courses in the program. Embedding transition content across courses allows PSTs to gain practice and knowledge throughout their program in a variety of different settings and through a variety of content. It allows PSTs to understand the relationship between the transition process and families, the transition process and the law, and how the process impacts different areas of the student's life and education.

Table 1. NSNH Transition Competencies for PSTs Programs.

Number	Competency
1	Use information from a variety of transition assessments to inform student-centered transition and career development planning (Utilizing Assessments).
2	Develop student-centered IEPs that ensure student voice in goals, process and outcomes (Student Focused Planning).
3	Design student-centered curriculum, instruction, assessments, related activities, and accommodations that will facilitate the movement toward identified post-secondary goals (Student-centered Curriculum).
4	Collaborate with stakeholders to insure and increase effective transition services, activities, supports, and outcomes for individuals with disabilities and their families (Interagency Collaboration).
5	Actively involve all families with sensitivity and responsiveness to the family's cultural, linguistic, and socioeconomic makeup throughout the transition decision-making and implementation process (Family Involvement).
6	Knowledge of program structures that use evidence-informed practices and research to establish effective programs and services (Program Structures).

Note. The list of key elements that make up each NSNH Transition Competency can be found at: <https://nextsteps-nh.org/toolkit-driving-change/drive-change-transition-practices/—competency-e>. NSNH = Next Steps New Hampshire; PST = pre service teacher.

Needs assessment and action plan. In the initial phase of the program's revision, existing special education course syllabi, activities, and requirements were evaluated against the components set forth in the Pre-service Teacher Transition Competencies (PSTST) developed by the NSNH Leadership Team (NSNH, 2018). Table 1 contains a list of the six competencies. (Note: A full version of the competencies with key elements and resources to develop your understanding of each competency area can be found on the Next Steps NH website: <https://nextsteps-nh.org/toolkit-driving-change/drive-change-transition-practices/>). As can be seen, these competencies were developed in the larger context of identified evidence-based practices in transition (Kohler, 1996; Kohler et al., 2016).

Once syllabi, course activities, and requirements were reviewed a needs assessment of competency areas was completed. (Note: A full version of the Needs Assessment and resources for the improvement process can be found at <https://nextsteps-nh.org/faculty-introduction-to-transition/preservice-program-improvement-process/>).

Program faculty were then consulted on the best way to infuse an understanding of each competency in the programs' courses to create a scope and sequence throughout the program. Course requirements were revised to include activities that asked PSTs to apply their understanding of all transition competencies in their work with students with disabilities and their families. The intent was for PSTs to have sufficient practice with each competency area in several courses so they could feel confident in their abilities to support their students in the planning process and teach skills needed for productive and satisfying lives after high school. An action plan that spanned the following 3 years (2015–2018) was developed. Periodically the needs assessment was re-administered to identify any components that required additional focus and the action plan was updated. Throughout the action plan process, PSTs were surveyed regarding their understanding and reported skill levels in

Table 2. Course Enrollments During Grant Years.

Course	2016	2017	2018
Special Education Law	17	21	21
Technology for Diverse Learners	27	30	27
Educational Testing	13	8	8
Working with Families	16	17	12
Curriculum Development	19	13	16
Special Education Internship	6	14	12

each competency. Course enrollments for all years of the grant are detailed in Table 2. It is important to note that in addition to Special Education program students, other students at the university participate in these courses as well. While all students enrolled in the courses benefit from the additional transition knowledge, only students enrolled in the Special Education graduate program completed the survey.

Graduate Coursework: Special Education Courses With Applied Practice

Special education law. In the class focused on special education law, PSTs are given a case study and asked to rewrite the transition portion of an Individualized Education Program (IEP). An IEP is provided in the case study that is clearly in violation of this student's free appropriate public education (FAPE) and would be considered out of compliance. PSTs are asked to identify the legal issues, utilize the NH Indicator 13 Compliance Checklist Form to evaluate the IEP, rewrite the IEP so that it is compliant. The Indicator 13 checklist was developed by the National Secondary Transition Assistance Center (<https://transitionta.org>) in collaboration with the Office of Special Education Programs to provide a way monitor the transition components of IEPs and to collect data (NSNH, 2020). For this project,

the class used the state's own version of the checklist. The full form is available on the NSNH website (<https://nextsteps-nh.org/transition-iep-requirements/about-indicator-13/>). For each area of the IEP that is out of compliance, students are asked to provide a brief description as to why, demonstrating that they are able to understand why a particular aspect of the plan might not be in compliance with IDEA. In completing the re-write of the IEP, students are asked to focus on the legal aspects of the transition plan, making sure that their work is compliant with law. The assignment is assessed as part of in-class work (Competencies 2: Student Focused Planning, 3: Student-centered Curriculum, 4: Interagency Collaboration, 5: Family Involvement, and 6: Program Structures).

Technology for diverse learners. In a course dedicated to assistive technology for students with disabilities, PSTs are asked to think through their students' individual strengths, areas of challenge, and how strengths can be leveraged to accommodate identified challenges. PSTs use the students they work with, in their internship or school setting and inventory any barriers the curriculum poses to students and technology solutions for student challenges are researched (Competency 3: Student-centered Curriculum). An action plan is developed that involves examining the system. PSTs consider how technology will continue to support students once they leave high school: in the community, independent living, and the workplace. The plan is assessed using a rubric created by the instructor that measures the appropriateness of the technology in supporting students in diverse settings (Competency 4: Interagency Collaboration).

Educational testing. In the course devoted to assessment, PSTs select a student with a disability of any age and complete *Opening Doors to Self-Determination Skills*, a person-centered planning tool (Wisconsin Department of Public Instruction, 2013). The informal assessment helps the teacher develop an understanding of the student's interests and directions for the future. Based on information obtained, PSTs then identify and administer any additional formal or informal transition assessment that would provide important information. PSTs are asked to share recommendations and student-centered goals that arise from the assessment and in collaboration with the student. Throughout the process, PSTs use age-appropriate transition assessments to inform and guide their work. A variety of assessments are available at: (<https://nextsteps-nh.org/transition-iep-requirements/age-appropriate-transition-assessments/>). The assignment is assessed using an in-class rubric (Competency 1: Utilizing Assessments).

Students receive additional practice with informal assessments to aide with meaningful transition in a different course later in the program. The McGill Action Planning System (MAPS; Vandercook et al., 1989) is used by PSTs to

familiarize the teacher with the power of person-centered planning for a student with disabilities and their family. As a result, PSTs often reflect in their end of program portfolio the importance of understanding goals and dreams of the individual in the context of their family when planning educational programs (Competencies 2: Student Focused Planning, and 5: Family Involvement).

Working with families. Based on the information obtained from an informal transition assessment completed in previous courses described above, PSTs, in a course devoted to collaborating with families, develop the student's preference, needs, and interest page of the IEP. PSTs are then tasked with using assessment results and information from the student and their family to draft the post-secondary goals page of the IEP. These goals include post-secondary training and learning opportunities, future work or supported employment options, independent or supported living opportunities, and community participation and engagement in adult services that would support the student following graduation. This assignment is assessed as part of in-class work. (Competencies 1: Utilizing Assessments, 2: Student Focused Planning, 3: Student-centered Curriculum, and 5: Family Involvement).

Curriculum development. Using a student on their caseload or a case study provided, PSTs, in the course focused on curriculum and lesson planning, write the transition section of a student's IEP: (a) present levels of academic achievement and functional performance, (b) student's preference, needs, and interests, (c) an appropriate course sequence, and (d) measurable annual goals with benchmarks necessary to achieve the post-secondary goals. These are evaluated using the criteria set forth in the New Hampshire Department of Education Indicator 13 checklist described above (NSNH, 2020) This assignment is assessed as part of in-class work (Competencies 2: Student Focused Planning, 3: Student-centered Curriculum, 4: Interagency Collaboration, and 6: Program Structures).

Special education internship. During an internship experience, PSTs develop an extended learning opportunity (ELO) for a student in their school and explore ways to expand those opportunities to create high quality ELOs (Competency 3: Student-centered Curriculum). Their learning is supported by the NSNH website *Beyond Classroom* (<https://beyondclassroom.org/>). PSTs use the criteria for high quality ELOs to guide and inform their work (Criteria is available at <https://beyondclassroom.org/design#1524699969730-ce38be2c-f2ff>). In addition, PSTs compile an agency and organization resource list for students on their caseload. The PSTs is required to contact the agency or organization to obtain firsthand knowledge of what services the agency or organization provides and

obtain the name of a specific contact person for that organization. Having established a relationship with the organization, PSTs reported that they felt more comfortable referring families to the organization or picking up the phone during a planning meeting to bring the representative from the agency into the conversation (Competency 4: Interagency Collaboration). During the internship seminar, additional practice is provided for writing the transition sections of the IEP (Competencies 1: Utilizing Assessments and 2: Student Focused Planning). The IEP is evaluated using the Indicator 13 checklist referenced above, focusing on making sure that all items in the checklist are present (NSNH, 2020). PSTs practice participating in a mock IEP meeting to discuss parental concerns, necessary coursework to assist the student to develop skills for increased success in post-secondary learning or training opportunities, independent or supported living, community engagement, and engagement in the workplace. This activity is completed as part of in-class work. (Competencies 5: Family Involvement and 6: Program Structures).

Survey Instrument

In addition to the significant course revisions, a survey instrument, to assess PSTs knowledge and confidence in skills in the transition competencies was developed by NSNH partners. The survey included 31 questions focusing on the key areas of transition competencies and PSTs selected a Likert-type-style rating for both their knowledge and their skills (i.e., 1 = No Knowledge, 2 = Some Knowledge, 3 = Knowledgeable, 4 = Very Knowledgeable).

The survey also included four open-ended response questions. The full survey can be reviewed on the NSNH website: <https://nextsteps-nh.org/wp-content/uploads/NH-Pre-Service-Special-EducationTransition-Career-Development-Survey.pdf>.

Data Collection

As part of the improvement process, students taking the revised courses who were also enrolled in the graduate Special Education Program completed a survey that generated both qualitative and quantitative data. Students completed the survey in the beginning, middle, and end of the improvement process. Surveys were administered in 2016, 2017, and 2018. Return rates for the surveys were 84% (16/19) in 2016 (as calculated by the number of responders divided by the number of students who received the survey), 93% (13/16) in 2017, and 88% (7/8) in 2018.

Data Analysis

Quantitative data analysis. The quantitative data were analyzed by calculating and comparing mean scores for the

survey at the beginning, middle, and end of the improvement process. Survey questions measured PSTs perceived knowledge and skills for the key elements in each competency. Mean scores for each key element were derived using Excel by averaging scores across participants in that element. There are four key elements in Competency 1, five key elements in Competency 2, six key elements in Competency 3, seven key elements in Competency 4, four key elements in Competency 5, and five key elements in Competency 6. The mean for each competency was then calculated by averaging the means of its key elements, as displayed in Tables 3 and 4. Faculty evaluated student gains in each key element and competency throughout the improvement process and revised the Action Plan with necessary course revisions to facilitate PSTs knowledge and skills in post-secondary transition.

Qualitative data analysis. The survey instrument also included four open response items where students could provide additional written information and feedback. The data from these questions were analyzed by the research team using a qualitative thematic approach (Coffey & Atkinson, 1996; Patton, 2002). This approach allowed the research team to analyze the data and develop initial themes. The main goal of the entire project was program improvement related to transition competencies. Thus data related to what was going well and areas of need were most helpful to faculty. Using the need to understand areas of improvement and PSTs success, as well as a knowledge of the literature focused on transition, the data were initially analyzed using what Miles et al. (2014) describe as a “start list” of codes and a deductive coding strategy (p. 81). Throughout the data analysis process, the coding was revised as new concepts emerged in what Miles et al. (2014) refer to as inductive coding. This prevented the researchers from trying to “force fit the data into preexisting codes” (Miles et al., 2014, p. 81). After coding, those data were clustered and grouped to look for emerging patterns that helped to explain the students’ experiences in the graduate special education program related to transition knowledge and skills. From the patterns, several overarching themes emerged. Based on the goal of the project, which was program improvement, it made sense to focus on strengths and needs.

Results

Quantitative Results

Knowledge. PSTs in the special education certification program increased their level of perceived knowledge of post-secondary transition topics over the course of the 3-year grant period in all competency areas. Mean scores for the PSTs knowledge in each competency area are presented in

Table 3. Special Education PSTS Means for Perceived Knowledge in Post Secondary Transition.

Transition knowledge competency	Spring 2016	Spring 2017	Spring 2018	Increase
	<i>n</i> = 16 (SD)	<i>n</i> = 13 (SD)	<i>n</i> = 7 (SD)	
1. Utilizing Assessments: Use information from a variety of transition assessments to inform student-centered transition and career development planning.	2.1 (.08)	3.2 (.15)	3.5 (.21)	1.4
2. Student Focused Planning: Develop student-centered IEPs that ensure student voice in goals, process and outcomes.	2.0 (.17)	3.1 (.16)	3.5 (.25)	1.5
3. Student-centered Curriculum: Design student-centered curriculum, instruction, assessments, related activities, and accommodations that will facilitate the movement toward identified post-secondary goals.	2.1 (.19)	2.5 (.29)	3.6 (.22)	1.5
4. Interagency Collaboration: Collaborate with stakeholders to insure and increase effective transition services, activities, supports, and outcomes for individuals with disabilities and their families.	2.0 (.21)	3.0 (.34)	3.4 (.22)	1.4
5. Family Involvement: Actively involve families with responsiveness to their cultural, linguistic and socioeconomic makeup throughout decision-making and implementation process.	2.6 (.44)	3.4 (.12)	3.8 (.13)	1.2
6. Program Structures: Knowledge of program structures that use evidence-informed practices and research to establish effective programs and services.	1.9 (.27)	2.5 (.35)	3.4 (.20)	1.5

Note. 1 = no knowledge; 2 = some knowledge; 3 = knowledgeable; 4 = very knowledgeable. PSTS = pre-service teachers.

Table 4. Special Education PSTS Means for Perceived Skills in Post Secondary Transition.

Transition skill competency	Spring 2016	Spring 2017	Spring 2018	Increase
	<i>n</i> = 16 (SD)	<i>n</i> = 13 (SD)	<i>n</i> = 7 (SD)	
1. Utilizing Assessments: Use information from a variety of transition assessments to inform student-centered transition and career development planning.	1.9 (.13)	2.8 (.14)	2.9 (.21)	1.0
2. Student-Focused Planning: Develop student-centered IEPs that ensure student voice in goals, process and outcomes.	1.8 (.09)	2.8 (.14)	3.0 (.25)	1.2
3. Student-centered Curriculum: Design student-centered curriculum, instruction, assessments, related activities, and accommodations that will facilitate the movement toward identified post-secondary goals.	1.9 (.19)	2.4 (.13)	3.2 (.25)	1.3
4. Interagency Collaboration: Collaborate with stakeholders to insure and increase effective transition services, activities, supports, and outcomes for individuals with disabilities and their families.	1.8 (.24)	2.6 (.28)	2.9 (.23)	1.1
5. Family Involvement: Actively involve families with responsiveness to their cultural, linguistic and socioeconomic makeup throughout decision-making and implementation process.	2.1 (.24)	2.7 (.11)	3.1 (.15)	1
6. Program Structures: Knowledge of program structures that use evidence-informed practices and research to establish effective programs and services.	1.7 (.17)	2.5 (.18)	3.2 (.28)	1.5

Note. 1 = skills; 2 = some skills; 3 = skilled; 4 = very skilled.

Table 3. Scores for Spring 2016 indicate that PSTs had No Knowledge to Some Knowledge of these transition topics (i.e., scores fell between 1.9 for Program Structures and 2.6 for Family Involvement). By Spring 2018, following activities that included applied practice, PSTs increased their ratings on their understanding of evidence-based transition practices to scores that fell between Knowledgeable and

Very Knowledgeable (i.e., scores fell between 3.4 for Interagency Collaboration and 3.8 Program Structures). Competency areas with the greatest amount of improvement were Student Focused Planning, Student-centered Curriculum, and Program Structures. Family Involvement was the area with the least amount of gain. Prior to the infusion of the applied practice activities, the PSTs program dedicated one

entire course to the importance of family involvement in special education services so a smaller change in this competency was not surprising.

Skills. Similarly, the PSTs indicated an increase in their ability to involve students, families, and other stakeholders in evidence-based transition activities on the assessment. Mean scores for the PSTs perceived skills in each competency area are presented in Table 4. Scores for Spring 2016 indicate that PSTs had No Skills or Some Skills in all areas (i.e., the range of scores fell between 1.7 for Program Structures and 2.1 for Family Involvement). By Spring 2018, the PSTs' ratings of perceived skills in transition fell between the high end of Some Skills (2.9 in Utilizing Assessments) to Skilled (3.2 in Program Structures). The competency area that had the greatest amount of change was utilizing Program Structures; PSTs recognized an improvement in their ability to carry out special education law policies and procedures, evidence-based practices, and involve their students in ELO's.

Qualitative Results

The analysis of the qualitative data resulted in the identification of two key themes, which reflected the trends and patterns: skills or strengths of the program and wants and needs.

Early implementation. The results in the following describe the survey results during the early implementation phase of the grant work.

Skills or strengths of the program. Some of the graduate students during this early implementation phase already felt a degree of confidence with their skills around transition because of coursework and work experience. One student reported,

I feel fairly confident in my skills surrounding transition, I understand the importance of meeting the needs of the family as well as making sure the student is invested and the plan has several support systems to insure success and follow through.

Another student wrote that they felt "confident because, at least I know the laws, and I can write a transition plan. In addition, I am able to utilize transition assessment tool to drive future IEPs."

Wants and needs. A number of students also spoke to the need for more experience: "I would feel more comfortable by having meetings with a team that had more experience," and, "I have a decent baseline, but I certainly need more detailed information." One student felt they were somewhat prepared, not because of the program, but due to past experiences. The respondent explained, "This is the only class

that I have taken that has addressed transitions. Virtually everything I know about transitions comes from my work experience as a case manager."

Students also spoke about the wide variety of different things that they would like to learn: "I would like to know more about what kind of services are offered other than college," and, expressed interest for information on "community resources, career readiness programs, common curricula, transition career goal programs, employment opportunities, and supports after high school. A respondent explained that they "would like to get more information, strategies, and experience in teaching students to effectively generalize skills early on to insure mastery when students leave school."

Students had clear ideas about the support and resources that they wanted from faculty. One student expressed a desire for

. . . a transition planning class would be of real benefit to students in the Master of Special Education Planning program. One in which students could design a curriculum unit plan on transition planning for the students they will be working with. I think a comprehensive course that walks students through the laws around transition planning, the process of gathering interest inventory into post-secondary goals, developing post-secondary goals overall and developing an IEP with transition goals. Maybe possibly having students present in small groups the findings of their transitions work to a mock IEP meeting.

Late implementation. During the late implementation phase it was clear that students did feel as if they had gained important skills with regards to transition.

Skills or strengths of the program. One student explained,

I feel that I have a deeper understanding of the importance family and community play in the transition planning and programming process. I feel prepared to teach the importance of self-determination and self-advocacy at all levels of schooling including high school and throughout the transition process.

Another respondent explained that the program prepared them well to be able to write transition plans and engage with students about their interests and involve parents to be part of the process. They felt the program "has provided them the opportunity to practice these skills and the ability to explain the results in a parent and student friendly verbiage." Overall, several respondents agreed simply that they felt prepared to engage with families and students in planning meaningful transition goals and activities.

Wants and needs. At the late implementation phase there were still students who believed that there should be a course that was focused on transition, with one student sharing they "would have benefited more from a course that

was specifically designed around transition planning,” feeling it “would benefit future students and this program to make transition planning and assessment and IEP writing a separate and required course of study for this program.”

Students also wanted “role-play, collaboration, mock team meetings, and constant transition planning—from the beginning phase to the final stages.” Another student expressed a desire for more case study practice: “Doing more of these [case studies] in every class would be wonderful and would strengthen understanding of the process.”

Discussion

The purpose of this article was to report on newly adopted practices in one graduate special education program. This article outlines one IHEs process for improving its PSTs programs in special education and the components of applied practice infused into the program’s coursework. This work included a significant focus on course revision across six courses (described in detail above) in the Special Education graduate program as well as a survey designed to assess the impact of the revision. Course revisions were based on the current research focusing on the importance of applied practice (Darling-Hammond & Richardson, 2009; Showers & Joyce, 1996). In addition, course revisions focused on the importance of providing PSTs with more knowledge and skills in evidence-based transition practices (Test & Fowler, 2018).

In addition to the course revision process, the grant project also included the administration of a survey with qualitative and quantitative data. A meaningful increase was found not only in PSTs knowledge of post-secondary transition practices (pre to post improvement process) but also, and perhaps more importantly, an increase in the perceived levels of the teachers’ ability to implement evidence-based transition practices. The qualitative data align with the quantitative data. The qualitative data suggest an increased understanding of evidence-based transition practices. In addition, while students still desired more authentic opportunities for role-plays and other experiences, it was evident that they felt both an increase in skills and confidence. This can be linked directly to the revised coursework which included specific opportunities in each course for knowledge, learning, and applied practice. This aligns with current research which suggests that teachers who have access to transition-based coursework are more likely to successfully implement transition practices (Morningstar & Benitez, 2013).

This strategic focus by one IHE to improve PSTs perceived knowledge and skills in all areas of evidence-based practices in transition underscores the importance of applied practice in special education program coursework. Prior research in PSTs special education training programs suggest that a majority of IHEs rely on fairly passive ways of

transmitting information on transition (Morningstar et al., 2018). The effects of this type of training result in teachers who feel unprepared to support their students as they ready for their adult lives. Yet, as has been demonstrated with the PSTs in this study, when a more robust set of applied practice activities in coursework takes place, either by requiring that PSTs apply their understanding of transition evidence based practices to the students with disabilities they work with or in case studies provided to them, then PSTs’ confidence in their ability to perform these essential transition services is evident.

Given the effect of a deliberate focus on the applied practice of transition activities by one IHE with its PSTs, several recommendations can be made. Special education program faculty have an opportunity to take a critical look at their PSTs coursework with an eye for ways to embed more hands-on, applied practice, similar to the activities described in the previous sections. The NSNH website offers resources to assist IHE faculty in evaluating their programs, learning more about each competency area, and plan for related course activities (<https://nextsteps-nh.org/preservice-program-improvement-process/#1457051270410-eeb48dcf-c1d0>). Furthermore, such intentional restructuring can assist in the training of PSTs to work in more rural and remote areas where in-service professional development in evidence-based transition practices might be difficult to obtain.

Limitations

This study focused on students at one university in a rural context. Thus, the results may not be applicable to universities or communities in more urban areas. Another limitation is related to the size of the participant sample. While a high percentage of PSTs took the survey during the final course in their program, the number of students in the graduate programs in special education is small. Results reported here should be viewed with a degree of caution, given the small size of the sample of students willing to complete the survey. This limitation may have some bearing on the reported results.

Implications and Future Directions

Avenues for future research might involve investigations that are longitudinal in nature. Researchers could survey teachers in the years following graduation to ascertain if their perceived knowledge and skill in post-secondary transition continues to be an area they feel confident about: their understanding of important transition components as well as the ability to engage their students in essential activities. Researchers might also want to compare the post-secondary outcomes (e.g., employment, post-secondary training and/or education, involvement in the community) of students with disabilities who have teachers who have

been trained in the ways described to the outcomes of students who have teachers who have not had such coursework. Finally, future studies should track PSTs as they enter their first years of teaching to examine the impact of focused transition related preparation on actual teacher practice.

Moving forward, it will be crucial to focus on the sustainability of the improvement. Now that the SPDG project is over, the university's program faculty will need to monitor curricular changes to be sure they are being implemented consistently across all courses. In addition, faculty and staff will need to continue to work on program improvement with regards to transition by surveying and evaluating both students and graduates in their own teaching practice.

Finally, it will be important to share the resources that have been created in New Hampshire with other schools and communities to allow them to create and improve transition processes. Since a wealth of free resources are available to students, teachers, parents, and IHE faculty on the NSNH website, <http://nextstepsnh.org> is a great place to start. By sharing resources with both university teacher education programs and public schools in rural areas, we will be able to work together to improve the transition to adulthood for all individuals with disabilities.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This project was funded in part by a grant from the U.S. Department of Education, H323A120003. However, this report does not necessarily represent the policy of the U.S. Department of Education and you should not assume endorsement by the Federal Government. Project Officer, Corinne Weidenthal.

ORCID iD

Ann Bassett Berry  <https://orcid.org/0000-0001-5940-1990>

References

- Benitez, D. T., Morningstar, M. E., & Frey, B. B. (2009). A multi-state survey of special education teachers' perceptions of their transition competencies. *Career Development for Exceptional Individuals, 32*(1), 6–16.
- Coffey, A. J., & Atkinson, P. A. (1996). *Making sense of qualitative data: Complementary research strategies* (1st ed.). SAGE.
- Darling-Hammond, L., & Richardson, N. (2009). Research review/teacher learning: What matters. *Educational Leadership, 66*(5), 46–53.
- Kohler, P. D. (1996). *A taxonomy for transition programming: Linking research and practice*. Transition Research Institute, University of Illinois.
- Kohler, P. D., & Field, S. (2003). Transition-focused education: Foundation for the future. *The Journal of Special Education, 37*(3), 174–183.
- Kohler, P. D., Gothberg, J. E., Fowler, C., & Coyle, J. (2016). *Taxonomy for transition programming 2.0: A model for planning, organizing, and evaluating transition education, services, and programs*. Western Michigan University.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. SAGE.
- Morningstar, M. E., & Benitez, D. T. (2013). Teacher training matters: The results of a multistate survey of secondary special educators regarding transition from school to adulthood. *Teacher Education and Special Education, 36*, 51–64.
- Morningstar, M. E., & Clavenna-Deane, B. (2014). Preparing secondary special educators and transition specialists. In P. Sindelar, E. McCray, M. Brownell, & B. Kraft (Eds.), *Handbook of research on special education teacher preparation* (pp. 405–419). Routledge.
- Morningstar, M. E., Hirano, K. A., Roberts-Dalm, L. D., Teo, N., & Klienhammer-Tramil, P. J. (2018). Examining the status of transition-focused content within educator preparation programs. *Career Development and Transition for Exceptional Individuals, 41*(1), 4–15.
- Next Steps New Hampshire. (2018). *Next Steps New Hampshire transition competencies for preservice special education programs*.
- Next Steps New Hampshire. (2020, May 21). *About indicator 13*. <https://nextsteps-nh.org/transition-iep-requirements/about-indicator-13/>
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). SAGE.
- Sanford, C., Newman, L., Wagner, M., Cameto, R., Knokey, A.-M., & Shaver, D. (2011). *The post-high school outcomes of young adults with disabilities up to 6 years after high school: Key findings from the national longitudinal transition study-2 (NLTS2)* (NCSER 2011-3004). Stanford Research Institute International.
- Showers, B., & Joyce, B. (1996). The evolution of peer coaching. *Educational Leadership, 53*(6), 12–16.
- Test, D. W., & Fowler, C. H. (2018). A look at the past present and future of rural secondary transition. *Rural Special Education Quarterly, 37*(2), 68–78.
- Vandercook, T., York, J., & Forest, M. (1989). The McGill Action Planning System (MAPS): A strategy for building the vision. *Research and Practices for Persons with Severe Disabilities, 14*(3), 205–215.
- Wisconsin Department of Public Instruction. (2013). *Opening doors to self-determination skills*. <https://dpi.wi.gov/sites/default/files/imce/sped/pdf/tranopndrs-self-determination.pdf>