

A Rural University's Response to the Polycrisis Facing Special Education Teacher Preparation

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Abstract

The field of special education is currently in the grip of a pressing polycrisis, a convergence of multiple issues that collectively pose a significant threat. These issues, including a nationwide shortage of special education teachers, particularly in rural areas, declining enrollment in teacher preparation programs, and high teacher attrition rates due to stress and workload, are urgent and demand immediate attention. To address this polycrisis, the paper's authors propose a novel approach to undergraduate special education teacher preparation in a rural university setting: a birth–age 21 program. Key features of the program's design will be reviewed, such as (a) a unified curriculum aligned with competencies and standards from early childhood and K–21 special education; (b) an emphasis on culturally responsive, family-centered practices; and (c) the prioritization of undergraduate student well-being and mental health, allowing space for personal development and interests. This article will close with potential benefits of a birth–age 21 teacher preparation program and recommendations for the field of special education and teacher educators.

Keywords

preservice programs, personnel preparation, rural values/concerns, certification, teachers/teaching, disability/ies

Special Education Teacher Shortages

Special Education (birth–age 21) continues to experience critical personnel shortages in the United States for qualified early interventionists/early childhood special educators (EI/ECSEs) and K–21 special educators. As of the 2023–2024 school year the United States Department of Education (U.S. DOE, 2024) reports widespread special educator shortages across 45 states and U.S. territories. A 2022 report by the U.S. Government Accountability Office also notes that shortages are widespread across rural areas (Nowicki, 2022). Furthermore, many states are being forced to fill special education positions with people who are not trained or qualified to fill those roles. Although the demand for qualified special education teachers historically has surpassed the supply of teachers entering the workforce since passage of the Education for All Handicapped Children's Act in 1975 (Billingsley & Bettini, 2019; Nagro, 2023), the current crisis is exacerbated by teacher retirements, the long-term impact of the COVID-19 pandemic, teacher attrition (Darling-Hammond et al., 2023), and declining interest in higher education teacher preparation enrollment (Kraft & Lyon, 2024).

Low Enrollment in Teacher Preparation Programs

Institutions of higher education (IHEs) that offer traditional teacher preparation programs are being challenged by a decrease in the college-age population and resulting lowering enrollments (Patrick, 2023). According to the National Council on Teacher Quality, enrollment in teacher preparation is 70% lower today than it was 10 years ago (Saenz-Armstrong, 2023). Partelow (2019) noted enrollments in teacher preparation programs declined by 35% between 2010 and 2018. Interestingly, enrollment in special education teacher preparation programs has not declined quite as significantly as in other areas of teacher preparation. However, it has been more pronounced in “small educator preparation programs (awarding 30 or fewer degrees) and in regional or comprehensive universities” (Rodriguez

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et al., 2023, p. 49). This phenomenon aligns with our experiences in our own institution, the flagship university in a rural northern New England State. We have experienced overall declines in teacher preparation enrollment, while simultaneously being situated in a rural state experiencing significant special educator shortages birth–age 21.

The issue of low enrollment in teacher preparation is further complicated by budgetary challenges faced by IHEs due to the overall decreases in the college-age population in our broader region. In the case of our institution, there is increased administrative attention on low enrollment programs and clear directives for deans to conduct annual analyses of programs with low enrollment and completion rates that lead to data-based decisions about student demand and the fate of underenrolled programs, including program revision, deactivation, and termination.

Teacher Attrition

Further complicating the challenges of teacher preparation program enrollment, scholars have illuminated several factors believed to be contributing to the declining interest in pursuing the teaching profession. This includes the impact of COVID-19 that has led to increased teacher stress, economic pressures on school budgets (Wilson & Kelley, 2022), and an increase in the percentage of teachers leaving the workforce prior to retirement. This narrative around the stress of teaching and the increased attention on mental health struggles in the teaching profession undoubtedly are additional factors contributing to the challenges of recruitment into teacher preparation programs. As such, pressure is on faculty within teacher preparation programs to grow enrollment and attract college students into teacher education majors despite negative perceptions of the teaching profession (Kraft & Lyon, 2024), without reducing standards or program quality. Importantly, high-quality special education teacher preparation matters. Research suggests that well-prepared special education teachers are far more likely to remain in the field (Miller et al., 1999) and that underprepared special education teachers can lead to poor student outcomes (Podolsky et al., 2016). One trend in mitigating the national shortages is a practice in some states of reducing special education teacher preparation requirements and hiring underprepared candidates to fill positions. Nagro (2023) cautioned this practice as the resulting high turnover rates suggest that this is not a promising solution.

The Polycrisis

Given the multitude of factors contributing to the shrinking special educator workforce, we assert that the field of special education is in the midst of a polycrisis. This term, polycrisis, signifies a situation in which multiple problems occur simultaneously, leading to a more profound and

devastating impact (<https://dictionary.cambridge.org/dictionary/english/polycrisis>). While typically applied on a global scale to describe interactions of a series of multinational crises (e.g., climate change, geopolitical conflict) the term may be considered on more localized scales when examining the interplay between multiple systemic crises and the resulting harm caused (Lawrence et al., 2022). We apply the term polycrisis to conceptualize the interplay between declining college enrollment, special education shortages, teacher attrition, and the resulting harm most acutely felt by children with disabilities and their families as “the chronic shortage restricts access to a free appropriate public education . . .” (Mason-Williams et al., 2024, p. 169). Because national data suggest that special educator shortages will persist, scholars and faculty in teacher preparation programs must continue to engage in finding novel solutions to recruit and prepare the future workforce to meet the needs of children with disabilities and their families in our public schools and local communities.

In February 2023, the National Center for Special Education Research (NCSER) convened a work group to explore factors perpetuating shortages and potential mitigation strategies. Barriers cited in their report included certification pathways that required licensure in both general education and special education, a lack of induction support, fewer students pursuing education degrees in higher education, and special educator role ambiguity (Taylor, 2023). Their recommendations for future research included the need to better understand how to address shortages, examining how to attract more candidates into the field, and clarifying roles and responsibilities of special educators and how they connect to student outcomes. They also emphasized the importance of exploring *specific programs* and *promising practices* focused on ensuring that students with or at risk for disability receive high-quality instruction and services. The report emphasized the need for special education teacher preparation programs to take a critical look at pathways to certification and identify how programs can evolve. The goal is to attract more candidates and fully prepare them to not only enter the special education teacher workforce but persist in the field.

In this article, we respond to the NCSER call by illustrating the journey of our undergraduate early childhood special education major that faced potential elimination due to low enrollment. We explain how we reimagined undergraduate special education teacher preparation through an expanded birth–age 21 lens. We discuss how, against the backdrop of a polycrisis of ballooning special educator teacher shortages nationally and in our rural state, we envisioned and birthed a bold new approach to special educator teacher preparation with the support of our university administration and State Agency of Education partners. In this new program design, we integrate the licensure standards for special educators across the birth–age 21

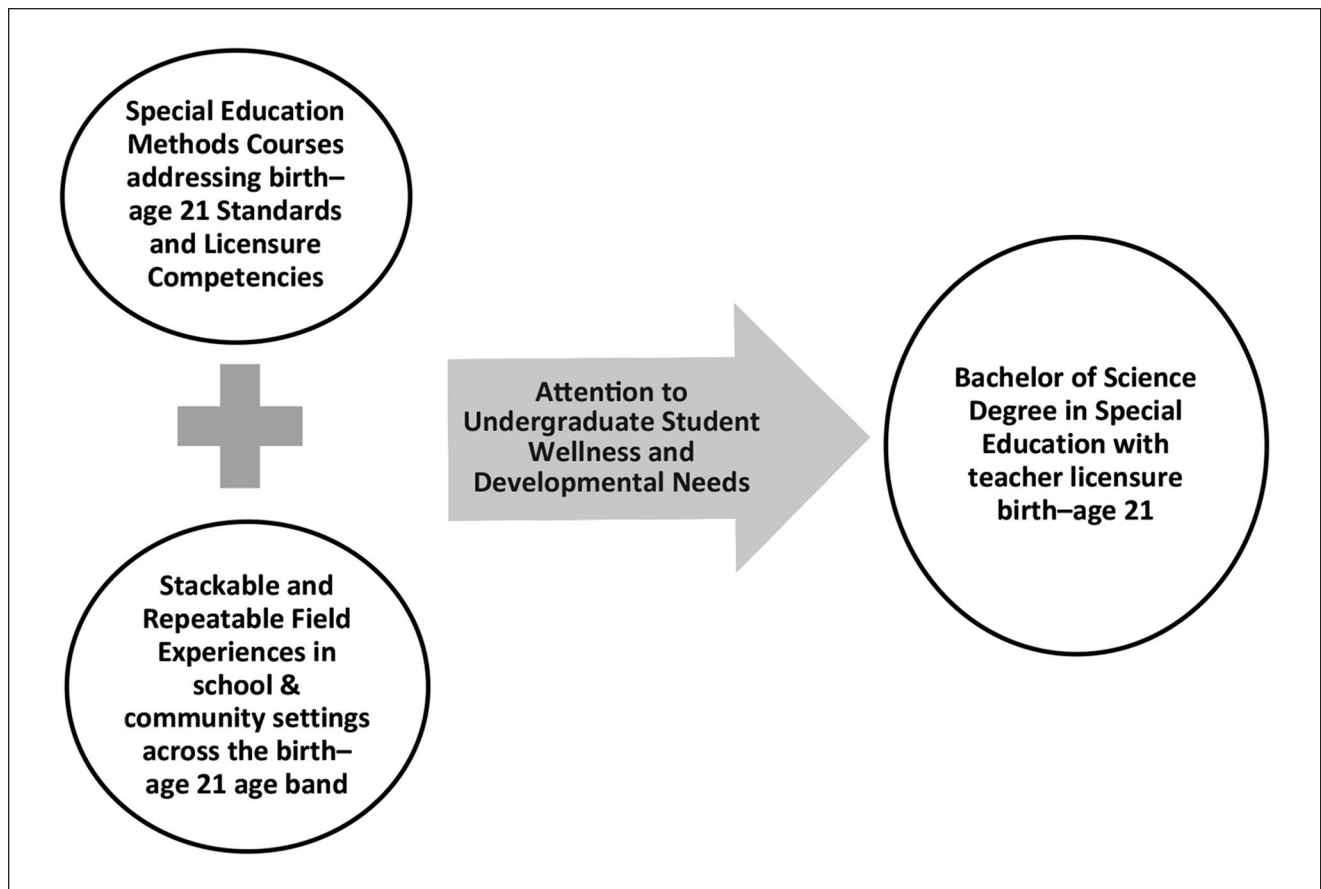


Figure 1. Key Features of Re-Imagined Birth–Age 21 Special Education Major.

Note. Candidates complete foundational and special education methods coursework across Early Intervention, Early Childhood Special Education, and K–21 Special Education. They can enroll in a repeatable field practicum within school and community settings to fulfill state-required practicum experiences selecting licensure age bands they wish to be endorsed in prior to their culminating full-time student teaching experience.

spectrum and require teacher candidates to engage in coursework and multiple and varied field experiences that will prepare them to enter the field in any special educator role (i.e., Early Interventionists, Early Childhood Special Educators, and K–21 Special Educators). Our intentional design prioritizes rigorous special education preparation across the birth–age 21 age span and thoughtfully attends to the developmental and wellness needs of our undergraduate student body. Figure 1 highlights key features of the redesigned major.

We will begin with a brief overview of special education teacher licensure in relation to federal policy, professional standards, and our state policy context. We then outline a new model for undergraduate special educator teacher preparation, one in which the traditional siloes of EI, ECSE, and K–21 Special Education are integrated through a coherent value driven framework, and commitment to undergraduate student health and wellbeing. This article highlights key contextual factors that led to the redesign, illuminates the process we engaged in, and provides a description of a birth–age 21 undergraduate special education degree program. We

conclude with a call to action that reflects our emerging thinking about how re-imagining special education teacher preparation through a birth–age 21 lens may offer new opportunities for special education teacher preparation programs experiencing low enrollment, particularly in rural contexts. Our call is also intended to spark conversations among special education teacher preparation scholars about ways in which we might break down siloes between EI, ECSE, and K–21 Special Education to resolve the dire work-force needs in our field.

Special Educator Teacher Licensure in the United States of America

To begin to think about special education teacher licensure, it is important to consider how requirements of the Individuals with Disabilities Education Act (IDEA) inform special education teacher preparation (Individuals with Disabilities Education Act, 2004). IDEA mandates that qualifying students with disabilities receive a free appropriate public education (FAPE), which includes being provided specially designed

instruction delivered by personnel certified in special education to meet their educational needs (Graber & Dragoo, 2024). While IDEA addresses the provision of special education across both Part C (early intervention birth–age 2) and Part B (ages 3–21), often teacher preparation programs and state licensure boards focus preparation pathways and competencies within and across the age bands.

As such, teacher preparation programs tend to adopt that same model. For example, in our rural northern New England state, candidates can be endorsed in special education in either: (a) EI/ECSE under the Early Childhood Special Educator Endorsement (birth–age 6); or (b) Special Education under the Special Educator Endorsement (K–Grade 8, Grade 7–Age 21, or K–21). We do not have categorical licensure options. Candidates receive licensure to serve the range of disabilities recognized under IDEA within the dedicated age bands. These licensure pathways require candidates to meet distinctive competencies that often align with the Council for Exceptional Children (CEC) special education professional standards. For example, the *Initial Practice-based Professional Preparation Standards for Special Educators* includes standards for both EI/ECSE and K–21 Special Education (Berlinghoff & McLaughlin, 2022). In general, teacher preparation programs across the country are influenced by contextual factors including geography and state policy contexts (Wilson & Kelley, 2022). Therefore, solutions that teacher preparation programs develop to address declining enrollments and work force development strategies in teacher preparation must also be mindful of the localized contexts in which they operate. IHEs across the country offer a variety of models for licensing special education teachers. Our university has utilized all these models simultaneously with varying degrees of success: dual certification programs (where candidates are licensed in both general and special education), accelerated master's programs, and distinct majors in special education or early childhood special education that historically have been informed by policy as well as changing demands for the role of special educator (Shepherd, et al., 2016). However, less common is a special educator teacher preparation design that prepares students to work as special educators across the full birth–age 21 spectrum integrating the licensure competencies and standards from the fields of early childhood and K–21 special education into one blended program.

We acknowledge there are a multitude of models and pathways to special education teacher certification within the United States, including alternative routes to certification, but it is not within the scope of this article to unpack the full range of options. We refer readers to the *Handbook of Research on Special Education Teacher Preparation* (McCray et al., 2023) as a scholarly resource for understanding the range of preparation pathways and the opportunities and challenges that continue to persist. In the

sections which follow, we will discuss the timeline and contextual factors that sparked our reconceptualization of special education teacher preparation through a birth–age 21 lens, and why we believe it is the right approach for our rural context.

Our Rural Context, University Climate, and Conditions

To begin, our university is located in a rural state whose total population, 643,077 (U.S. Census Bureau, n.d.), is significantly less than the population of the New York City public school district, which in the 2022–2023 academic year totaled 937,118 pupils (NYC Public Schools, n.d.). Our university relies on enrolling a significant number of out of state students, as there are only about 5,000 students per year who graduate from high school in our state. Our university is considered the flagship university, and while we have a state college system, our University's College of Education and Social Services plays a critical role in conducting research and preparing teachers, birth–Grade 12 and higher education leaders, social workers, and other human services personnel at the undergraduate and graduate levels. Many of our graduates remain in our state and are hired into our rural school systems. The College enrolls approximately 1,000 undergraduate and graduate students, about half of whom are enrolled in birth–Grade 12 education programs in our Department of Education.

Prior to the program redesign, the special education offerings within the Department of Education included an undergraduate major in ECSE which prepared students for licensure as birth–age 6 EI/ECSE with dual certification in general early childhood education (ECE; birth–age 6). For undergraduate students interested in pursuing special education coursework focused on kindergarten through age 21, the only curricular offerings were two special education minors. The first was a popular 18-credit minor open to all university students that featured a wide range of course offerings from which students could elect to learn about special education foundations, disability studies, and methods. The 18-credit minor was attractive to a wide range of students around campus including those majoring in disciplines outside of teacher education. The second special education minor was a 21-credit dual endorsement minor available only to undergraduate teacher education candidates. These students earned a general education licensure in Elementary, Middle Level, or Secondary Education through their major, and simultaneously earned a K–8 or Grade 7–age 21 special educator endorsement through a 21-credit minor (15 credits of special education coursework and a 6-credit practicum). The department also offered graduate level programming in special education through an MEd program with pathways in EI/ECSE, and K–21 Special Education. The graduates of both the undergraduate

and graduate degree programs readily found employment in special education. Yet, the demand for special educators in the state always superseded the number of completers. In fact, our state routinely issues provisional special educator licenses. In 2022, the state reported 195 K–21 special educators, and 23 early childhood special educators operating under provisional licenses.

The Impetus for Program Redesign

Enrollment Trends

In the fall of 2017, EI/ECSE and ECE faculty proposed blending their licensure programs into a single degree that spanned the entirety of the ECE endorsement band (i.e., birth–Grade 3) and EI/ECSE (i.e., birth–age 6). Initial progress toward degree and programmatic changes could have been faster and enrollment in EI/ECSE dipped in the middle of programmatic and curricular changes. The unforeseen, untimely, and unprecedented challenges brought to the university by the COVID-19 pandemic left the EI/ECSE program and faculty in a vulnerable position (Meyer & Northey, 2024). At that point, the unified major in EI/ECSE/ECE still needed to be established and the EI/ECSE program appeared to be underperforming. In winter 2020, the EI/ECSE undergraduate major was identified as a low enrollment program and recommended for deactivation by the then college Dean and supported by the Provost. Over a 5-year period, the number of graduates from the EI/ECSE program had declined from 15 graduates in 2017 to two in 2022 when the program was deactivated.

Although the K–21 special education minor dual endorsement pathway was not targeted for deactivation, the faculty in our special education program had noticed a similar trend in decreasing enrollments and had received anecdotal evidence from students pursuing the pathway and their advisors that it was increasingly challenging to meet the requirements in 4 years as an add on to their general education major requirements. Feedback from field partners also indicated that there were not enough credits in special education methods to adequately prepare candidates to enter the field ready to step into the role of special educator. The newly revised major officially launched in fall 2024 with an enrollment of 18 current majors. There are promising signs that the changes we made will address both the enrollment concerns and promote more robust special education preparation across the birth–age 21 spectrum.

Student Well-Being

Increasing concerns about mental health among our undergraduate teacher education candidates were noted prior to the COVID-19 pandemic and were further exacerbated by the pandemic. Faculty serving students in both the undergraduate

EI/ECSE major and the undergraduate K–21 special education minor were observing increasing levels of student anxiety and stress when trying to meet program requirements within 4 years. For example, a typical degree pathway at our institution requires 120 credits, but students were reporting needing to exceed the typical 15 credits per semester to complete their certification requirements for the special education pathways. Moreover, the option to explore electives or consider study abroad was significantly diminished.

Given the emerging research on teacher burnout, particularly in the field of special education (Brunsting et al., 2023) as well as the need to attend to the emotional health of educators (Stark et al., 2022), our faculty began to think more deeply about changing our special educator preparation model. They wanted to prepare candidates with the content and skills needed to enter the field as beginning special educators while attending to the developmental and social-emotional health needs of college students ages 17 to 22 in a time of increased focus on mental health and identity development.

University General Education Expansion

An additional contextual factor that informed the redesign was the university's impending changes to its general education curriculum required for all students regardless of college or major. As an outcome of the university's reaccreditation cycle, the university set plans in motion to move from a modest 15 credits of general education requirements to a new 42 credit set of general education requirements beginning fall 2023 (Dickinson et al., 2024). Therefore, it was an opportune time to consider the ways in which the revisions to the major could incorporate general education requirements in ways that would meaningfully align with and enhance preparation of special education teacher candidates birth–age 21. It also raised questions about whether the 4-year K–21 dual endorsement model for teacher preparation was feasible.

Deactivation to Rebirth

During spring 2021, a series of conversations ensued within our college's Department of Education about plans to deactivate the major in EI/ECSE. Part of the tension around the decision to deactivate was the dire national special educator teacher shortages that spanned birth through age 21 and a core value among program faculty to train educators who could support students with disabilities within natural and inclusive settings. It was through collaborative conversations, namely among EI/ECSE, ECE, and Special Education faculty, that assured EI/ECSE faculty that they could abandon work toward the unified EI/ECSE/ECE major and still contribute to preparing early childhood educators for inclusive environments (see Meyer

& Northey, 2024). Simultaneously, the K–21 Special Education faculty and the EI/ECSE faculty began to see potential benefits to an expanded birth–age 21 undergraduate major in special education. Moreover, the EI/ECSE program faculty were given a clear directive that the Provost’s office would not support minor changes to the EI/ECSE major, but that a more substantial revision could be considered if it were designed to enhance quality, promote access, and ensure sustainability in enrollments. The decision to deactivate the EI/ECSE major would be upheld, but faculty were charged with making bold changes to create a more expansive undergraduate special education major offering.

Beginning in spring 2022, the K–21 special education faculty and the EI/ECSE faculty (hereafter referred to as the special education faculty), held a retreat and began work to realign and reorganize special education programming within our program to create one cohesive undergraduate major dedicated to serving individuals with disabilities and their families from birth to age 21. The initial planning process was guided by a few key questions:

- What values, content, and skills do you feel are central to creating a coherent vision and curriculum for special education teacher preparation across birth–age 21?
- What are some existing courses in EI/ECSE and K–21 that you think are high priority for a new bachelor’s degree? Are there “new courses” that you think should be developed? What are some classes from other disciplines on campus or other minors/certificates that you think we should consider as companions or in alignment with our new bachelor’s degree?
- What types of field experiences and partnerships might we envision for this new bachelor’s degree? How would we manifest the “early and often” field experience mantra that our department markets to prospective students?

By the end of spring 2022, the original EI/ECSE major was officially deactivated and the effort to substantially revise the EI/ECSE major to a birth–age 21 Special Education undergraduate major was widely supported by the department chair, dean, and provost.

While troublesome at first, the proposed deactivation of the EI/ECSE major facilitated the opportunity for special education faculty to examine the changing standards for the profession, teacher shortage data, state special education licensure competencies, and our own core values related to preparing high-quality and well-prepared special educators. It yielded an identity shift for the program in which we sought to break down our professional identities as EI/ECSE special education faculty and K–21 faculty and

embrace our passion for the field of special education through a more unified and expansive birth–age 21 lens. It also created an opportunity to consider whether our minor leading to licensure in special education had been sufficient to prepare students for dual certification. Ultimately, we concluded that a broader major was the better option for students, the state, and the field.

Reimagination and Integration: Rebirth of a Major

Two tenure-track faculty led the iterative revision work as part of their sabbatical efforts during the spring semester 2022. This included frequent meetings with the full special education faculty to gather input into the emerging design as well as multiple consultations with our state Agency of Education licensing officer. We reviewed data on teacher shortages both nationally and within our state. Three authors on this article also participated on the state-level leadership team for CEEDAR (Collaboration for Effective Education Development, Accountability and Reform Team, <https://ceedar.education.ufl.edu>). Participation in discussions around setting state goals, examining curriculum and exploring new ideas to attract candidates into special educator teacher preparation further informed the redesign. In addition, we engaged in informal conversations with our colleagues in our teacher education programs, as well as students, alumni and field partners. To gain more insight into ways other IHEs organized their preparation of special educators, we tasked a doctoral student to research current models for undergraduate special education teacher preparation programs. We read widely and took a deep dive into the literature on special education teacher preparation, including the recent special issue of the *Journal of Special Educator Preparation* focused on the special education teacher shortage and the preparation of special educators (Nagro, 2023). An additional source of input was the recently released *Council for Exceptional Children (CEC) Practice Based Standards for the Preparation of Special Educators* (Berlinghoff & McLaughlin, 2022). We spent time examining the standards for EI/ECSE and K–21 and looking for areas of convergence and divergence to inform our conceptualization of our birth–age 21 model. Furthermore, we reflected on the Division for Early Childhood (DEC, 2014) Recommended Practices in Early Intervention/Early Childhood Special Education and read literature on special educator burnout and special educator emotional wellness (e.g., Garwood, 2023; Stark et al., 2022).

All of these inputs led us to pose two central questions to guide our curricular redesign: (a) What if we align professional standards and licensing competencies with what we know about best practice and core values in special education to develop special educators prepared to work flexibly across age bands to comprehensively meet needs

of students with disability across traditional silos of special education? and (b) How do we prepare future special educators in ways that honor their development as college students and shore them up to enter the field in ways that engages their passion for advocacy and their humanity, wellness, and changing interests? Importantly, we aimed to prioritize both the curricular components and field experiences that would fully prepare beginning EI, ECSE, and K–21 special education teachers, while also being structured to optimize their opportunities to explore different facets of special education across home, school and community settings. Moreover, we wanted to ensure that pre-service candidates would have space within their academic program to explore interests and activities that would further develop them as people and contribute to them developing hobbies and passions that were fulfilling (e.g., clubs, sports, and study abroad).

Because the revisions to the major were so significant, we simultaneously navigated the internal university curricular revision approval processes and the state accreditation curricular revision processes. Internally, our provost and dean were very enthusiastic about the boldness of the changes and the ways in which this new conceptual model for the major may attract students to the university and support our land grant mission and commitment to meeting the needs of our local communities and the state. However, we had to engage in a multitude of conversations with faculty in our general education programs to help them understand the rationale for the changes. Some faculty lamented the loss of a focused EI/ECSE major, while others were concerned that the related loss of the special education licensure option through the dual endorsement minor would limit options for undergraduates. Our state Agency of Education partners noted that although our university had previously been accredited to certify candidates K–21 under the dual certification model, concerns had been expressed about the lack of depth of the special education content in the minor pathway. They were therefore optimistic about the changes to the major as it addressed the importance of both depth and breadth within the discipline of special education. Moreover, they felt that providing pathways for certification birth–age 21 could produce candidates who would be assets to rural schools struggling to hire personnel to fill vacancies at all age bands of special education service delivery. Hiring a prepared special educator who may be able to both provide EI services as well as serve students within the PK–12 school system could be incredibly valuable in small population rural school districts. The revisions were approved by both the university and the state standard's board in late spring 2023. Figure 2 presents a conceptual model highlighting key inputs that informed the revision process described above as well as the four core values that are central to the birth–21 special education major.

Implicit in the redesigned special education major are our collective core values that feed our birth–age 21 special education program identity. What follows is an elucidation of those values and how they are represented within the revised undergraduate major conceptual model. Also included alongside each core value are our hypotheses about why recentring these values in program redesign could lead to successfully attracting, preparing, and retaining special education teachers.

Culturally Responsive Family-Centered Practice Across the Birth–Age 21 Continuum. Within special education, transition planning between grade levels is necessary. Preparing special education teacher candidates to support post-secondary transition requirements in Part B continues to be an area of focus for many teacher preparation programs (Swindlehurst & Berry, 2020). Research also shows that families need more support with their experiences moving from early intervention (EI) to early childhood special education (ECSE) and from ECSE to K–8 special education (Turnbull et al., 2011, 2021). Families voice similar complaints about the experiences of transitioning from middle to high school and high school to post-secondary education (Shepherd, Fowler, et al., 2016). Preparing our candidates to understand the needs of children with disabilities and their families and the legal requirements across these transitional phases will enable them to be much more effective in enacting best practices in transition. Furthermore, it is important that special education teacher candidates are prepared to form trusting partnerships with culturally diverse families. This requires attention to ensuring that special educators think about strategies for engaging in culturally responsive practices that center family voice and engage families fully in special education processes (Kervick et al., 2019). This includes being able to collaborate effectively with multicultural liaisons and interpreters to support the needs of children who are immigrants or refugees (Hurley et al., 2017). Moreover, for rural communities, one of the significant challenges in the teacher shortage is the siloed way teacher preparation approaches special education by dividing EI and ECSE birth–age 6 into a traditionally separate preparation track from K–age 21. For rural schools, hiring teachers with endorsements that span birth–age 21, for example, increases flexibility for meeting legal requirements for serving children with disabilities within that community, particularly when they may not have the numbers to justify an Early Interventionist, Early Childhood Special Educator, and a K–21 special educator. To our knowledge, we would be one of the first teacher preparation programs to advance this expanded birth–age 21 approach. Given the dire number of shortages, innovation is necessary.

Experiential Learning in Home, School, and Community Settings. As first-year students enter their teacher preparation

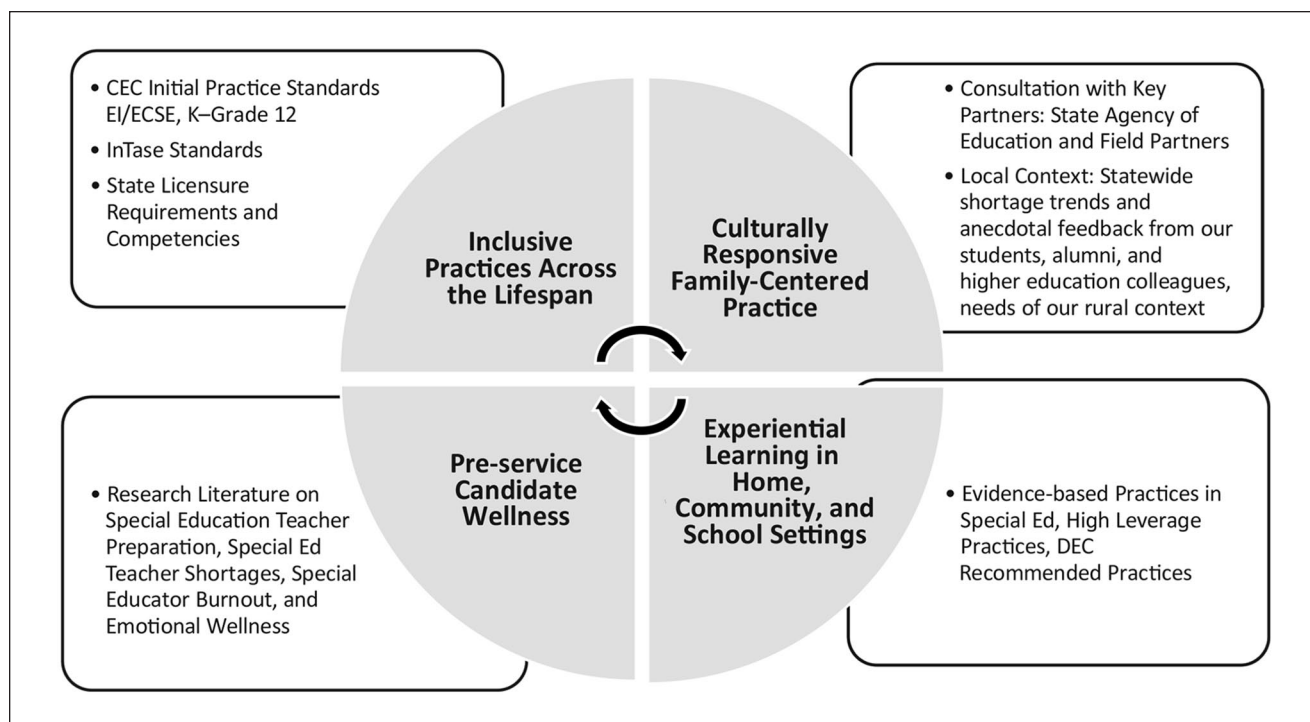


Figure 2. Inputs and Values Informing a Re-Imagined Birth–Age 21 Special Education Major.

Note. This figure highlights the core values that are central to our re-imagined birth to age 21 special education major design. Surrounding the outside are the key inputs that informed development of the curricular elements and field-experience options. CEC = Council for Exceptional Children; EI/ECSE = early interventionists/early childhood special educators; INTASE = International Association for Scholastic Excellence; DEC = Division for Early Childhood.

program, they may need to become more confident about which age band they want to receive licensure. In addition, special education is an expansive field and the importance of opportunities to practice along a continuum of controlled to authentic applications is well-documented in the literature (Leko et al., 2023). Furthermore, the knowledge and skills that a licensed special educator holds do not need to be confined to school contexts, but includes home and community settings, supporting children with disabilities in a variety of areas including academic, social-emotional, communication and motor skill development.

Our goal in taking a birth–age 21 approach is for pre-service teacher candidates to experience the full range of special education practices across birth–age 21 through repeated practice-based field experiences in a variety of settings, to inform which age band or age bands they want to focus on as they begin their teaching career. They will also have the bonus of graduating from our program with the coursework under their belt to add additional age bands later in their career more seamlessly if desired. In addition, our university’s department of education embraces the motto “early and often” when it comes to teacher preparation. Our model offers options for three 60-hour practicums prior to a full-time student teaching experience, beginning in fall of their second year. The

practicum can be in school, home or community settings and are aligned with licensure requirements. They are designed for candidates to access a variety of experiences that will facilitate awareness about the different ways special education is operationalized across ages and settings, as well as inform their own self-awareness on preferred age bands and educational settings.

Preservice Candidate Health & Wellness. Student well-being was also a core value that faculty considered during the major’s redesign. Over the last 3 years, faculty witnessed the toll that the COVID-19 pandemic took on undergraduate students’ health and wellness (Copeland et al., 2021) and on educators in the field (Hirshberg et al., 2023). As part of the curricular revision process the dean of the college requested a market analysis to not only discern the market demand for special education majors, but also to determine how the major could be revised to better support the well-being of enrolled students. Our findings emphasized the value of fostering relationships, building a strong network, exploring new interests, and prioritizing mental health while pursuing rigorous academic opportunities to become career ready. Therefore, we considered these additional factors in how we designed the program of study and major requirements.

Developing Lasting Friendships and Leading a Meaningful Life. The program is based on a cohort model where students will enroll in the same core courses that will build relationships with each other and with faculty in the program. Faculty developed a first-year seminar to bring the cohort together to develop collegiality and orient them to the field of special education and professional resources within the discipline. Through this seminar students create a four-year plan and understand the different licensure options available to them. We also introduce candidates to key professional organizations (e.g., CEC and DEC) to help them begin building their professional identity and understanding of important resources to assist them in their professional development. Furthermore, they engage in reflective activities that help them think about the strengths and assets they bring to the work and identify goals for developing their confidence and professional identity and readying them for their first field practicum.

Cultivating Interests and Health and Wellness Habits. The program of study includes ample room for students to explore clubs, participate in arts and sports activities, participate in high impact practices like study abroad or enjoy the natural environment that surrounds our campus. We believe that through participation in extracurricular and out of class leisure activities, undergraduate students will expand their sense of community furthering their development and will discover interests and passions that will be central to leading a balanced life within a helping profession (King et al., 2021). In addition to the first-year seminar which focuses on setting up good habits for self-care and setting goals around professional and personal interests, we added a culminating seminar in the senior year that includes an emphasis on how to attune to their emotional wellbeing (Stark et al., 2022) and how to reduce burnout during student-teaching and into the future. Additional goals of the seminar include developing an understanding of how to navigate the workplace, as well as how to seek desirable working conditions based on their personal interests, skills and needs and to develop skills in advocacy for themselves and the students/families with whom they will be serving (Brunsting et al., 2023).

Strong Academic Environment. The birth–age 21 content focus of the major will be intellectually stimulating as students expand their knowledge and skills in evidence-based practice across the continuum. Explicit engagement with the DEC (2014) Recommended Practices including considering how to utilize these practices with families in a variety of contexts including rural settings (Decker et al., 2021), is critically important. Extending that learning into school age settings while engaging with special education High Leverage Practices (McLeskey et al., 2019) will ground them in evidence-based practice for

serving school-age youth. Early and often field experiences will facilitate applying what students are learning in the field in ways that promote rigor. Students will also be encouraged to develop additional areas of expertise by pursuing relevant minors or certificates. For example, there is room within their 4-year academic plan for students to add a university minor in a field of study that might enhance their special education expertise (e.g., American Sign Language, Education for Culture and Linguistic Diversity, Communication Sciences, Human Development and Family Science, etc.) or other disciplines that might be a passion (e.g., Equine Studies, Dance or Spanish). A critique of the former iteration of the major expressed by alumni through informal advising conversations was the concern that there was limited room for electives or taking advantage of the multitude of minor and certificate offerings available to students in other majors. Students also wish to access the robust learning opportunities available to them in a research university through participation in applied research with faculty. We felt compelled to construct the major so that students had more flexibility to leverage these research opportunities through independent studies, participation in research labs and the university's Honors College, or our college's own Scholars of Distinction program, where students engage in independent or faculty guided research leading to a thesis or other culminating project that complements their major and research interests.

Inclusive Practices Across the Lifespan

One of the powerful outcomes of the redesign of the undergraduate major in special education is that it afforded the opportunity for faculty in the program to reconceptualize our vision and mission through a birth–age 21 lens. The vision of the program is to foster a more equitable and inclusive society enhanced by opportunities for individuals with disabilities to live enviable lives (University of Vermont, n.d.). The program's mission is to prepare our pre-service teacher candidates to engage with individuals with disabilities and their families in ways that (a) affirm their value, worth, and dignity; (b) advocate for their civil and human rights; (c) support their inclusion in schools and communities; and (d) advance their self-determination. To this end we believe that our teacher candidates need opportunities to consider what inclusion means beyond the walls of a classroom and to learn evidence-based practices that enhance opportunities for people with disabilities to fully participate in their communities and schools. This includes learning about self-determination, advocacy, accessibility, policy and law so that our candidates can support enactment of inclusionary opportunities guided by the interests and passions of individuals with disabilities and their families (Giangreco, 2017).

Table 1. Bachelor of Science in Special Education Birth–Age 21 Program of Study: General Education Core Classes.

Core area	Classes
Liberal Arts	<ul style="list-style-type: none"> Arts and Humanities: 6 credits Social Sciences: 6 credits Natural Sciences: 6 credits Math: 3 credits
Core Skills	<ul style="list-style-type: none"> Quantitative and Data Literacy: 3 credits Writing Information Literacy 1: 3 credits Writing Information Literacy 2 or Oral Communication: 3 credits
Common Ground Values	<ul style="list-style-type: none"> Diversity 1: 3 credits Diversity 2: 3 credits Sustainability: 3 credits Global Citizenship: 3 credits

In summary, we intentionally wanted to ensure that our reimagined major will ensure that our candidates experience rich preparation in special education to equip them to enter the profession as advocates for inclusion and accessibility, to support positive outcomes for children and youth with disabilities. Simultaneously, we committed to ensuring they have a multi-faceted undergraduate college experience that facilitates opportunities for them to develop as young adults, explore and integrate what they are learning, and discover new passions. More broadly, we hope to advance a birth–age 21 vision, to begin to think about how we as a field can take bold steps to sustain high-quality teacher preparation and address special educator shortages in novel ways.

Birth–Age 21 Curricular Requirements

We now describe the re-imagined Bachelor of Science (BS) degree and provide a table that outlines the core program course requirements (see Tables 1 and 2). To earn a BS in Special Education students must complete a minimum of 120 credits of academic study. This includes 42 credits of general education curriculum as well as special education methods courses and required field experiences for licensure. In our state all candidates must also pass praxis core, demonstrate qualifying SAT or ACT scores or equivalent coursework and pass a licensure portfolio. The BS professional preparation sequence begins in the first year of the program, with five core courses that build the foundational knowledge and skills for any special educator working with individuals with disabilities and their families from birth to age 21. First, students are introduced to the history of special education and the experiences of individuals with disabilities across the birth–age 21 age span. Second, students are introduced to the basic principles and research findings in the discipline of development and how this knowledge can form the basis for educational practice. Third, students

Table 2. Bachelor of Science in Special Education Birth–Age 21 Program of Study: Special Education Major Core Classes.

Course number	Course title
EDSP 1050	Issues Affecting Persons with Disabilities
ECLD 1560	Language, Policy, Race, & Schools
HDF 1050	Human Development
EDSP 1000 (1 credit)	Topics in Special Education Careers
EDSP 2170	Behavior Management
ECSP 3110	Early Intervention for Infants and Toddlers
ECSP 3120	Assessment for Early Intervention and Early Childhood Special Education
EDSP 3230	Collaboration and Communication in Schools and Community
ECSP 2100	Individual Practice for Inclusion Families, Schools, and Community Collaboration
ECLD 3050	Literacy Intervention
EDSP 3140	Math Intervention
EDSP 3150	Practicum in Special Education
EDSP 3980 (repeatable up to 9 credits)	
EDSP 3120	Special Education Assessment
EDSP 3110	Meeting the Instructional Needs of All Students
EDSP 3991 (12 credits)	Student Teaching
EDSP 3000 (2 credits)	Contemporary Issues (Student teaching Seminar)
Electives (15–18 credits)	(Study abroad, electives, additional practicum, certificate, or minor)
Total credits for the major	120

explore the theories, practices, and policies related to the intersection of race, language policy, and school. The fourth course explores evidence-based behavior management interventions with a focus on relationship-centered approaches. Lastly, students enroll in a one-credit seminar which introduces careers in the field of special education and the endorsement age-bands for special education teacher licensure in our state. The seminar assists students in designing their 4-year plans, including personalized practicums and licensure options.

In the fall semester of their second year, students become eligible to enroll in their first practicum course at the age-band of their choosing to work toward their personalized licensure and endorsement goals. Students may repeat this 60-hour practicum up to 3 times across the program of study (i.e., 9 credits). The opportunity for multiple practicum experiences over time enables students to explore their interests in the different age-bands for which they can earn

special education licensure, and to track over time their knowledge and skill development through applied practice across the birth–age 21 endorsement competencies. While there is much variation in how states divide special education licensure age bands across the birth–age 21 spectrum, in Vermont there are four options: (a) birth–age 2 (i.e., Early Intervention), (b) ages 3–6 (i.e., Early Childhood Special Education), (c) Special Educator Kindergarten–Grade 8, and (d) Special Educator Grade 7–age 21. Licensure in Vermont is noncategorical, which means that candidates must be prepared to serve children with the full range of IDEA recognized disability categories within the age band for which they are endorsed. With a combination of supervised practicum hours (i.e., 60 hours) within each age band and coursework that addresses content across the age bands, students can easily stack endorsements. These formative experiences occur in diverse, community, and school-based settings close to our campus.

During subsequent semesters students enroll in an additional professional sequence of courses including the following methods classes: (a) evidence-based practices for teaching infants, toddlers and preschool age children with disabilities; (b) two courses in assessment encompassing EI/ECSE and K–21 where candidates learn about screening, determining eligibility, instrument selection and interpretation, identifying the developmental and learning needs of children with disability for instructional planning, and communicating assessment results; (c) curriculum planning and inclusionary practice to meet the needs of preschool aged children with disabilities and their families; (d) collaboration and co-teaching in special education; (e) culturally responsive practice and working with families across home, school and community contexts; (f) inclusive teaching strategies to meet the needs of individuals with low incidence disabilities, assistive technology, augmentative/adaptive communication and writing individualized education plans for children with disabilities ages 3–21; and (g) evidence-based literacy and numeracy intervention methods. During the spring of the junior year students can study abroad or alternatively, choose to pursue an academic minor, co-major or undergraduate certificate, or collaborate with faculty on a research endeavor. Lastly, during the spring semester of the final year, students enroll in a culminating full-time student teaching internship in the preferred licensure age band (EI, ECSE, K–8, or 7–21), as well as a seminar that provides further support in reflecting on their student teaching experience, building their licensure portfolio and preparing them to enter the profession and thrive as new special educators.

Where Do We Go From Here, as a Program and as a Field?

As a special education teacher preparation program at a university situated in a rural state experiencing massive special

educator shortages, and against the national backdrop of compounding need to increase the special educator workforce within the context of a health and mental health crisis, the outcome of declining enrollment simply could not be closure of our EI/ECSE teacher preparation program. Children with disabilities and their families need skilled special educators to ensure that they get the services and support they need; it is a civil right. The field of special education continues to evolve to meet the demands of the time and the contextual realities and diversity of U.S. public schools across a variety of geographic contexts. But three core elements of special education teacher preparation continue to be critical, including “shared vision, coherence, and a core curriculum grounded in practice (Griffin et al., 2023, p. 451).” This article offers a new way of thinking about addressing shortages in special education that may be particularly desirable for rural spaces, but has broad applicability for any teacher preparation program faculty who are intrigued by the idea of creating a vision for birth–age 21 special educator preparation and the possibilities it may yield for realizing the mandate of IDEA’s Part C and Part B.

There is value in conceptualizing special education teacher preparation as encompassing both Parts C and Part B through integrating the values and practices that facilitate effective work as a special educator with children and families across the birth–age 21 age span. Through integrating standards across age bands and centering values, we can prepare special educators to flexibly meet the needs of children and families, particularly in rural communities. While we are in the nascent stages of being able to realize the outcomes of this redesign, we can report that after experiencing multiple years of declining enrollment, in our pilot year we now have 18 dedicated majors. Our first-year seminar suggests the design of the major and the freedom for exploration is resonating with students. They are a passionate group of preservice candidates who come to us with vast experience working in partnership with peers with disabilities and a keen interest in developing their skills as special education advocates, while simultaneously discovering new interests and opportunities through the flexibility allowed by the program to try electives, participate in extra-curricular activities, hold part-time jobs, and engage in faculty research. Our community and Agency of Education partners are collaborating closely with us and expressing optimism for the opportunities that the model may yield.

We acknowledge that in advancing this model at this early stage, we are taking a decisive step in promoting a new direction that will need to be fully evaluated in the years that follow our launch and with that comes risk. The polycrisis of declining interest in college attendance, negative perceptions of the teaching profession and challenging workplace conditions that are contributing to instability in the special educator workforce persist. We fully intend to engage in robust research to understand how our students

and field partners reflect on the experience, how our graduates contribute to the ever-evolving field, and whether this new approach might offer a new pathway through a challenging landscape. We also look forward to deeply engaging our higher education colleagues in robust discussion about the model we are advancing and the prospect of new and exciting lines of research that may emerge. We are living in a time that requires bold action and creativity. High-quality teacher preparation matters, and we intend to continue to be humble in our understanding of the importance of continuous improvement and reflective practice, yet unafraid in our willingness to take risks and respond with creative thinking on behalf of our inspiring teacher candidates and the children with disabilities and families who they will compassionately serve.


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