



# Educators' Perceptions of the Importance of Supports in Inclusive Settings for Students with IEPs



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## Abstract

For educators, understanding students with disabilities through a social-ecological lens allows planning teams to address the mismatch between what the student is able to do and what is expected in the school through changing the environment(s) (e.g., Universal Design) and/or adding support(s) (e.g., teaching skills). Yet, little is known about educator perceptions of the importance of arranging supports for students with disabilities to increase their engagement in general education settings. Therefore, pre-service and practicing general and special educators were asked to read a vignette about a child with a disability and rate the importance of identified supports. Results reflected statistically significant differences in ratings of support importance between educator groups (i.e., special educator, general educator) for one vignette.

**Keywords:** Educator perceptions; Social-ecological model; Students with IEPs; Support needs

## Introduction

The Least Restrictive Environment (LRE; IDEA, [1]) mandate requires students with disabilities be educated alongside their peers without disabilities to the maximum extent possible (U.S. Sec. 1412[a][1] & [a][5]). The maximum extent possible or relative restrictiveness of a student's placement is based on individual student's needs and is reflected in the amount of time a student with an individual education program (IEP) spends in general education settings and elsewhere. Provisions for supplementary aids, services, and supports are included in the law to promote access to general education settings, but it is up to IEP teams to ensure these supports are provided to each student in support of this mandate.

### Legal basis for inclusive education

Since the reauthorization of IDEA in 2004, courts have adopted an "integration presumption" when resolving disputes over the LRE [2-4]. This presumption holds school districts accountable for justifying placement of students with disabilities outside general education settings. According to Colker [2], "Congress enacted the integration presumption in 1974 to hasten structural change in the alternatives available to children with disabilities-to hasten the closing of disability-only institutions and the creation of other alternatives for children with disabilities" (p. 795).

Similarly, Kauffman and colleagues [5] contended that U.S. courts generally perceive inclusive settings more favorably than other types of settings for students with IEPs. Wehmeyer and colleagues further this, stating "we are at a point in time when students with disabilities...can receive specially designed instruction in typical classroom settings, and - with the use of supplementary aids and services and related services - can succeed in those settings" [6]. Despite arguments about integrating students with IEPs into the general education setting, there remains a clear preference for integrating students [3,5]. The debate over integrating students with disabilities in general education settings has historical roots that continue to resonate in the education system today.

**Summary of legal issues:** During the 1976-77 school year, over 3.6 million students aged 3-21 received special education services. Within 40-years, this number increased to over seven million during the 2017-18 school year [7]. The percentage of students included in the general education setting 80% of the time or more also increased substantially (i.e., 1989 - 31.7%, 2015 - 62.5%; U.S. Department of Education, National Center for Education Statistics, [9]). Clearly the emphasis placed in public laws and policies on accessing the general education setting has yielded impressive results.

### Studies investigating the effectiveness of inclusive education

**Benefits of integration:** Educating students with and without disabilities in common integrated school settings has numerous academic and social benefits [4]. In fact, the literature available on integration “overwhelmingly supports integrated instructional approaches over those that are categorically segregated” ([8] p. 504). Students with disabilities continue to show academic gains across settings and subjects, often at a higher rate, after integration [4,10-12].

Interestingly, benefits are also noted in research on integration for students without disabilities. For instance, more positive peer interactions, improved grades, higher standardized test scores, more positive attitudes towards peers with disabilities, and increased emotional intelligence are identified following integration [4,10]. Although it is undeniable that many students benefit from instruction in inclusive settings, it is misleading to suggest that inclusive education is, in and of itself, a remedy for all of the learning difficulties children may experience.

**Attitudes toward integration:** Although many factors interfere with successfully implementing inclusive education opportunities, perhaps the most important is educator attitudes. If educators do not perceive integration as a viable or important option for students with disabilities, then successful implementation will be difficult, if not impossible [4,13-15]. Keaney [4] stated, “The success of any integration effort is crucially dependent on the willingness and capacity of our teachers to implement it” (p. 831). Attitudinal factors that are important for successful integration of students with disabilities in the general education setting include: (a) grade level taught, (b) availability of support services (c) level of support received from administrators, and the most influential factor, (d) perception of success teaching students with disabilities [17].

Scruggs and Mastropieri (1996) reported findings from a research synthesis on teacher perceptions of mainstreaming and inclusion between the years 1958 and 1995. They reported a high number of teachers across studies identified that students with disabilities created problems in the general education setting that would not otherwise be present. When asked about time for planning for integration, teachers reported additional time is essential but not generally available. Lastly, teachers perceived there to be a lack of resources to support integration of students with disabilities; this included both material and personnel support [4,13-15].

### Conceptual Framework

Everyone needs and benefits from supports, yet individuals with disabilities require supports that differ by intensity, duration, and type. The framework that most commonly encapsulates this ideology is the social-ecological approach [17,18]. A social-ecological conceptualization of disability focuses attention on

the mismatch between people’s personal competencies and the performance expectations associated within culturally valued settings and activities. This conceptualization of disability is in contrast to more traditional conceptualizations (e.g., the medical model) where disability is understood as a defect within a person [17,19]. The key implication of a “medical conceptualization” of disability is to cure or partially cure a person through medical or behavioral intervention. If the disability is eradicated or lessened, that person will become more independent (e.g., less dependent on others).

In contrast, the key implication of a social-ecological conceptualization of disability is to provide a person with extraordinary supports (i.e., supports that other in the environment do not need) that eliminate or reduce the mismatch between the person and environmental demands. When provided the proper supports, a person can more fully participate in culturally valued activities and settings and experience improved quality of life [20]. In terms of children with disabilities in school settings, a social-ecological understanding of disability calls for educators to provide supports to students that address the mismatch between their competencies and the demands of different school settings and activities [17].

An important commonality between medical and social ecological conceptualizations is that both are grounded on the premise that people with disabilities can be differentiated from others based on limitations in personal competence. An implication of both models is to call for interventions that will result in increased personal competence, whether through instructional or medical interventions. The medical conceptualization calls for reducing limitations in order to increase the capacity of people to function more independently; the social-ecological conceptualization calls for reducing limitations in order to reduce the person-environment mismatch. Although this distinction may seem inconsequential, it is important because the desired outcomes from any intervention are qualitatively different [17-19]. The goal of acquiring a greater array of skills (the medical model outcome) is not equivalent to the goal of increasing meaningful participation in an array of settings and activities (the social-ecological outcome; [21]).

The rationale for “reducing personal limitations,” under the social-ecological conceptualization of disability, is to reduce the person-environment mismatch. As a result, any efforts that are targeted to “reducing limitations” can be considered supports. In relation to the field of education, instruction is one type of support highlighted through this conceptualization (see Table 1). The intent of instructional supports is for a student to become more competent, and, thereby, lessen the person-environment mismatch [20]. Instructional supports are classified as Teacher Initiated Supports and Student Directed Supports because the intent of the supports under these categories differs with respect to the individual responsible for directing the instruction.

**Table 1:** Types of Supports Provided to Children to Access the General Education Curriculum.

General Education Supports			
(Individualized Supports Provided to Students with IEPs that Promote Access to the General Education Classroom, a FAPE, and education in the LRE)			
Environmental Supports		Instructional Supports	
Supports to Change the Environment—increase the capacity of the general education classroom to include the student		Supports to Change the Child—increase the capacity of the child to be successful in the general education classroom	
<i>Additional Resources Supports</i>	<i>Performance Supports</i>	<i>Teacher Initiated (TI) Supports</i>	<i>Student Initiated (SI) Supports</i>
Add Something to the Classroom That Enables The Student To Be More Successful	Establish Different Expectations for Performance To Better Allow Students to Demonstrate Their Learning	Increase The Capacity Of The Student through Teacher-Initiated Instruction	Increase The Capacity Of The Student Through Self-Directed Instruction
<i>People supports</i>	<i>Modifications</i>	<i>TI Content Instructional Supports</i>	<i>SI Content Instructional Supports</i>
Provide Other People To Assist The Student (This Could Include Paid Staff Or Volunteers, Adults Or Peers)	Modify Performance Expectations So The Student Is Not Doing The Same Level Of Work As Other Students	Provide Strategies Targeted To Content (e.g., Academic) Skill Development	Provide Strategies Targeted To Content (e.g., Academic) Skill Development
<i>Assistive Technology (AT) Supports</i>	<i>Accommodations</i>	<i>TI Social-Behavioral Instructional Supports</i>	<i>SI Social-Behavioral Instructional Supports</i>
Provide Technology That Enables a Student To Participate In Settings and Activities In Ways That s/he Otherwise Could Not	Modify Performance Expectations So That The Student Can Submit Assignments and Participate In Alternative Ways	Provide Strategies Targeted to Social-Behavioral Skill Development	Provide Strategies Targeted To Social-Behavioral Skill Development
<i>Adaptations</i>			
Provide (i.e., create, adapt) Classroom And Learning Materials To Make Them Accessible To The Student			

Naturally, increasing personal competency addresses only one part of the person-environment mismatch; the other aspect is the environment. Supports bridge the gap between limitations in personal functioning and environmental demands, and anything that increases the capacity of the environment to fully include a person (i.e., mitigates the demands of settings or activities) is as much of a support as something that increases the competency of the person [20].

Environmental supports can include, people, technologies, modifications to activities, and/or physical modifications to the environment. The intent of environmental supports is to make a classroom more accessible to a student, and thereby, lessen the person-environment mismatch. Environmental supports are further classified as Additional Resource Supports and Performance Supports, because the intent of the supports under these two categories is different [18-20].

**Problem Statement**

Application of a social-ecological model to students with disabilities in schools calls for supports to be provided that increase access to general education settings and activities. Supporting students with IEPs requires educators to problem-solve in order to identify possible supports, extend time and energy arranging supports, and fully implement the supports that are arranged. Yet, little is known about educator perceptions on implementing supports on behalf of students with IEPs in order

to increase engagement in general education settings. Therefore, the purpose of this study was to investigate the relative priority teachers ascribe to different types of supports provided in general education settings to students with IEPs in kindergarten through twelfth grade. Additionally, the extent to which the intensity of the support influences the priority educators place on providing different types of supports was investigated. This investigation also aimed to answer whether pre-service and practicing educators differ in regard to the importance they place on providing different types of supports to students with IEPs in the general education setting.

**Methods**

A survey design was employed to investigate the relative priority that teachers ascribe to different types of supports provided in the general education setting to students with IEPs [20]. This design allowed for the merging of quantitative cross-sectional survey methods and qualitative methods to provide a comprehensive analysis of the problem under investigation.

**Survey design**

Four versions of the survey were created to allow for a diverse and expanded view of educators’ perceptions of supports. Each survey included a vignette highlighting a different student with a disability and supports aimed at improving their access to a Free Appropriate Public Education (FAPE) in the LRE (see

Table 2). Supports created for each vignette align with the categories of support highlighted in Table 1 (i.e., people, assistive technology, adaptations, modifications, accommodations, content instructional supports, social behavioral instructional supports). After the description of the student and supports, participants

were asked to rate their perceptions of importance on 4-point Likert-type scale referencing how important they felt each of the seven supports were at ensuring the student received a FAPE in the LRE. Participants were also asked to rate how intense they felt the support would be to implement on a 3-point Likert-type scale.

Table 2: Vignettes and Supports.

	Support Category	Support Type	Sarah-16 (ID/CP)	Mikenna-10 (ADHD)	Adam-7 (Autism)	Eli-13(LD)
Environmental Supports	Change the Environment: Supplementary aids and services	Assist the student (i.e., aide, peer, volunteer)	Peer tutoring for classroom assignments	Check and Connect Mentor	Paraprofessional to keep student connected to learning	Special education teacher co-teaches in academic classes
		Technology to the student (i.e., AT)	Calendar application on phone	Watch Minder Watch w/ cues to reinforce behaviors	AAC device with select vocabulary	Support eText & Portable spell checker
	Modify Expectations: Adaptations, modification, accommodations	Adapt classroom and learning materials (adaptations)	Highlighted readings	Preferential seating and seating schedule	Provide visuals in the classroom and school environment	Supported eText readings
		Modify performance criteria (modification)	Create a different/subset of exam questions	Narrowed list of multiple choice options on tests	Monitor performance through permanent products	Simplify test questions; provide extended time.
		Modify performance expectations (accommodations)	Answers provided orally for essay tests	Completion of classwork via laptop and word processing software	Create visual/tactile supports to use during whole group activities	Provide self-correcting materials for immediate feedback
	Increase personal competency: Skills instruction	Instructional strategies targeted for content skill development (academic)	Tutoring from special education teacher	Teach "previewing" strategies for assignments & seatwork	Utilize manipulatives during instructional times	Teach SQ3R Method for study skills
Instructional Supports	Instructional strategies targeted for behavioral skill development (behaviors)	Documentation of "crying episodes"	Teach self-monitoring of on-task behaviors (Watch Minder)	Teach replacement behaviors for self-biting	Teach student how to request help	

**Instrument validation:** An expert panel including K-12 educators, university professors, a professional disability rights organization administrator, and a government consultant were gathered to validate the survey and supporting vignettes. The panel provided feedback and content validity for the approach taken to classifying supports. These individuals were provided with a two-part survey and were asked to consider a) whether the seven types of supports make sense and b) if there were any further categories that needed to be considered in the model.

The goal of part one was to establish whether each of the seven categories of support established through early work in this investigation were distinguishable from the six other categories; along with identifying any additional domains for consideration. Given support domains and descriptions, the expert panel was asked to read and indicate their agreement that each support domain was distinct from the other support domains. Findings from Part 1 of the expert panel survey indicated that the majority of respondents perceived the seven categories of supports to be distinct from one another.

Part two involved matching the supports from each vignette to the corresponding support category. A review of findings from Part two indicated the majority of respondents on the expert panel were able to re-categorize the supports identified in each vignette back into the appropriate categories. Adjustments were made where necessary to clarify the supports aligned with their respective support categories and then a new survey was created to take these edits into consideration. Two additional respondents completed the updated survey and no inconsistencies were noted after completion. After necessary adjustments were made, a pilot of the survey was conducted. No issues in comprehension of the vignettes or surveys were noted and therefore, participant recruitment was initiated.

Data Collection

Participants were recruited through a university and local school districts in central Illinois. Instructors of university courses and administrators in school districts were contacted via email to seek permission for recruitment and data collection. Pre-service

educators were recruited through undergraduate and graduate courses in the college of education (i.e., special education, elementary education). Practicing educators were recruited through graduate courses in the same college of education, as well as through local school districts. After gaining permission, recruitment and survey data were collected through a face-to-face format. This was advantageous because it allowed for participant recruitment and data collection to occur at one point in time while the researcher was present. Total surveys completed by vignette can be seen in Table 3. After each recruitment session, recruitment totals were updated to ensure a representative number was collected across all vignettes. In addition, demographic and survey data were entered into the Statistical Package for the Social Sciences (SPSS; IBM Corp. [23], Version 21.0).

**Table 3:** Total Number of Surveys Completed by Vignette (n = 405).

Vignette	n	%
Vignette 1: Sarah	103	25.4
Vignette 2: Mikenna	100	24.4
Vignette 3: Adam	102	25.2
Vignette 4: Eli	100	24.7

**Table 4:** ANOVA Summary Table for Support Importance.

DV	Source	SS	df	MS	F	p	Partial $\eta^2$
Sarah	Between treatments	1096.39	4	274.1	2061.87*	0	0.99
	Educator Rank	0.05	1	0.05	0.38	0.54	0
	Educator Type	0.18	1	0.18	1.38	0.24	0.01
	Rank x Type	0.03	1	0.03	0.21	0.65	0
	Within treatments	13.16	99	0.13			
	Total	1109.55	103				
Mikenna	Between treatments	998.84	4	249.71	1881.45*	0	0.99
	Educator Rank	0.03	1	0.03	0.19	0.67	0
	Educator Type	0.03	1	0.03	0.19	0.67	0
	Rank x Type	0.23	1	0.23	1.72	0.19	0.02
	Within treatments	12.74	96	0.13			
	Total	1011.58	100				
Adam	Between treatments	1181.66	4	295.42	2307.66*	0	0.99
	Educator Rank	0.14	1	0.14	1.09	0.3	0.01
	Educator Type	0.16	1	0.16	1.21	0.27	0.01
	Rank x Type	0.03	1	0.03	0.25	0.62	0
	Within treatments	12.55	98	0.13			
	Total	1194.2	102				
Eli	Between treatments	1028.48	4	257.12	1855.04*	0	0.99
	Educator Rank	1.42	1	1.42	10.25*	0	0.1
	Educator Type	1.78	1	1.78	12.82*	0	0.12
	Rank x Type	0.1	1	0.1	.68*	0.41	0.01
	Within treatments	13.31	96	0.14			
	Total	1041.78	100				

Note: \*Significant at the p < 0.01 level. DV = Dependent Variable.

### Data Analysis Procedures

The process of preparing the data involved four main steps including, designing the codes, coding, data entry, and data cleaning [24]. Codes were designed to allow for clear coding and data entry into the appropriate systems. A serial identifier was created by the researchers for each completed survey and was used to track the data. The researchers then used variables and compute commands to run a two-way ANOVA with the independent variables (pre-service vs. practicing educators, general vs. special educators).

### Results

A two-way ANOVA was used to determine ratings of support importance between pre-service educators enrolled in a central Illinois university, practicing educators enrolled in graduate level work at the same university, and educators employed at local school districts (Educator Rank). Further, analysis investigated differences between special and general educators (Educator Type). Last, the interaction effect of Educator Type by Educator Rank was examined. Two-way ANOVA results are presented in Table 4.

Results reflected no significant differences in interactions between Educator Rank and Educator Type across the four vignettes. Analysis of results also reflected no significant main effect differences for three of the four vignettes (Sarah–intellectual disability/cerebral palsy, Mikenna–ADHD, Adam–autism); however, there were significant differences for Eli (learning disabilities) in Educator Rank and Educator Type.

Ratings of support for Sarah did not significantly differ between practicing and pre-service educators (practicing educator  $M = 3.24$ ,  $SD = .06$ ; pre-service educator  $M = 3.29$ ,  $SD = .05$ ). Likewise, ratings did not differ between special and general educators (special educator  $M = 3.22$ ,  $SD = .06$ ; general educator  $M = 3.31$ ,  $SD = .05$ ). In general, all educators rated the importance of Sarah's supports in ensuring she received a FAPE in the LRE similarly, in the importance range.

The analysis of the Mikenna's vignette indicates there were no significant differences between practicing and pre-service educators ratings of support importance (practicing educator  $M = 3.11$ ,  $SD = .07$ ; pre-service educator  $M = 3.15$ ,  $SD = .05$ ). There were also no significant differences between ratings of support importance between special and general educators (special educator  $M = 3.15$ ,  $SD = .07$ ; general educator  $M = 3.11$ ,  $SD = .05$ ). Overall, Mikenna's supports were rated similarly, regardless of Educator Type or Educator Rank.

Results for Adam reflected no significant difference between practicing and pre-service educators (practicing educator  $M = 3.34$ ,  $SD = .07$ ; pre-service educator  $M = 3.42$ ,  $SD = .05$ ). Furthermore, no significant differences were noted between special and general educators (special educator  $M = 3.33$ ,  $SD = .07$ ; general educator  $M = 3.43$ ,  $SD = .05$ ). On average, the ratings of support importance for Adam did not differ between special and general educators or practicing and pre-service educators.

Significant differences were noted between Educator Rank and Type for Eli. The main effect of Educator Rank for Eli yielded an  $F$  ratio of  $F(1, 96) = 10.25$ ,  $p < .01$ , indicating a significant effect, (practicing educator  $M = 3.03$ ,  $SD = .07$ ; pre-service educator  $M = 3.28$ ,  $SD = .05$ ). The main effect of Educator Type for Eli yielded an  $F$  ratio of  $F(1, 96) = 12.82$ ,  $p < .01$ , also indicating a significant effect (special educator  $M = 3.01$ ,  $SD = .06$ ; general educator  $M = 3.30$ ,  $SD = .06$ ). On average, the ratings of support importance for Eli indicated that general educators rated the combined mean of the seven categories of supports higher than special educators. In addition, pre-service educators rated the importance of the combined mean of the seven categories of supports higher than practicing educators.

### Discussion

Results of the four two-way ANOVAs indicated that although pre-service and practicing educators did differ in regard to the importance they placed on providing different types of classroom-based supports to students with IEPs in the general education

setting, it was to a minimal degree. In general, pre-service general and special educators rated supports slightly higher than practicing general and special educators in regard to importance. One possible explanation for the differences could be the result of experience in the field and understanding the necessity of supports for all students with disabilities; however, this was not explicitly investigated in this study and could be due to chance.

### Educator rank

Educator rank is used here to differentiate between pre-service and practicing educators. Given that pre-service educators have little experience in the classroom setting, this inexperience may impact their understanding of supports students with specific learning disabilities need, and how their disability impacts them in general education settings. Therefore, pre-service educators might have a more optimistic view of the abilities of students with learning disabilities, lessening their perceptions of the need for support. Although all supports are helpful, pre-service educators may not view all of them as essential for a student with a learning disability due to the nature of this condition (e.g., targeted needs). Research suggests that pre-service teachers have more positive attitudes towards the inclusion of students with disabilities in general education setting early on in their respective programs [25] or after included experiences in schools [26,27]. Practicing educators likely have some classroom experience working with students with specific learning disabilities, and therefore, have a better understanding of how disability impacts progress in general education settings; leading to higher ratings of support importance than those from pre-service educators.

### Educator type

Educator type is used here to distinguish between special and general educators. Significant differences were found between ratings of support importance for both general and special educators for Eli (learning disability). A possible explanation for differences between special and general educators, although not explicitly investigated in this study, could be the result of experience in the field. General educators rated the combined mean of the seven categories of supports higher than special educators for Eli. Course work and experience working with a range of student abilities may lead special educators to believe supports suggested in the vignette were not as essential in ensuring a FAPE in the LRE. On the other hand, general educators might have less experience brainstorming and implementing supports, perceiving the supports to be more essential because the IEP team in the vignette suggested they were necessary.

If the eligibility category did sway the perceptions of importance of supports among educator groups, it is strange that ratings of support importance for Mikenna were not rated significantly different given that she too, received services for a high incidence disability. Given Mikenna had some behavioral tendencies that interfered with her academic achievement, these

behaviors may have prompted participants to rate each category of support similarly.

Although some educators and professionals may identify autism as a high incidence disability, students identified for special education and related services under this eligibility category generally need supports to facilitate progress in all areas of school life (i.e., social, emotional, behavioral, communication, academics, functional). Educators' prior experience or beliefs about working with students with autism could have led to perceptions that all supports are necessary in order for a student, such as Adam, to receive benefit from general education settings. In regard to this, Sansosti & Sansosti [28] found that teachers viewed students with autism as needing supports more frequently than other students with disabilities. In light of this finding, the participants in this study may have perceived all of Adam's supports as necessary.

Sarah was eligible for special education and related services under the eligibility category of intellectual disability (cerebral palsy). Given the extent of mismatch between her personal competencies and demands of the general education setting, all educators might have perceived all supports to be important. She also had ambulatory and behavioral issues, which could further lead to perceptions of greater support need across educator groups. Given this, behavioral issues and physical limitations may have also led participants to perceive supports as more important for Sarah, Mikenna, and Adam, regardless of Educator Rank and Educator Type.

Researchers have found that presence of challenging behaviors in students negatively impacts educators' attitudes towards them, and behaviors such as hyperactivity, impulsivity, screaming, aggression, and opposition often resulted in diminished relationships between the student and teacher [29-31]. Educators in this study may have perceived the suggested supports to be even more important for Sarah, Mikenna, and Adam due to the presence of challenging behaviors and their previous attitudes towards students with behavioral tendencies. Although educators might perceive supports for students with learning disabilities, such as Eli, as necessary, those with more expertise working with this population may perceive some categories of support to be less important than others because there was no presence of behavioral tendencies or physical limitations.

Johnson & Pugach [32] investigated general educators who taught students with mild learning and behavioral problems. They found these educators rated supports higher when they related to collecting data and highlighting engagement in positive behaviors. Educators rated supports lower when they related to providing systematic feedback, collaborating with other educators on methods to address the problem behaviors, and analyzing academic skills and teaching prerequisite skills. The researchers indicated that educators often cited they did not use an intervention strategy because they did not feel they had authority to implement it. The supports highlighted in the

corresponding vignettes may have been strategies that general educators felt they would have authority to implement; therefore, leading to higher combined mean scores for the support categories, especially related to Eli.

### Recommendations for Future Research

This investigation is an important addition to current literature focusing on a supports paradigm because it provides a closer look at educators' perceptions of supports that could be implemented to better meet the needs students with IEPs in general education settings. There are many avenues to explore as a result of the findings and limitations in this study. Participants (i.e., practicing special and general educators, pre-service special and general educators) in this study did not differ significantly in regard to their perceptions of support importance, with the exception of Eli (learning disability). One might expect a difference in ratings of support importance between these groups due to level of experience and continued education and training. Given that this was not the outcome of this investigation, it is important to continue to explore whether other groups of educators rate the importance of supports similar to those included in this investigation. As the sampling procedure was also a limitation, it would be important to investigate the results of a replication study with a purely randomized sample of pre-service and practicing educators.

This investigation utilized only four vignettes highlighting four different students with disabilities created for the current study. Therefore, it would be worthwhile to create additional vignettes highlighting students with disabilities representative of the 13 eligibility categories for special education and related services; thus allowing investigators to explore whether disability related variables impact perceptions of support importance. Furthermore, adding to the vignettes might allow for a more in-depth investigation of how emotional and behavioral issues can further confound perceptions of support importance.

Although increased attention in research on assessing support needs of school-aged children through the social-ecological lens is available [17,21,33], little research exists investigating educators' perceptions of different categories of supports that might be implemented for students with IEPs in general education settings as a part of this framework. Furthermore, investigating more closely how subject area, years of teaching, number of special education courses taken, and experience with students with disabilities influences ratings of support importance.

### Summary

This investigation was a first attempt at identifying specific categories of supports and developing a survey that investigates educators' perceptions of these categories of through the lens of the social-ecological framework. IDEA requires that all students with disabilities have access to a FAPE in the LRE and provisions for supplementary supports and services are embedded within

this law. In line with the social-ecological framework, Common Core State Standards (CCSS; National Governors Association Center for Best Practices & Council of Chief State School Officers, [34]), and IDEA [1], supports are an essential component in ensuring students with IEPs have access to and make progress in the general education curriculum. There is also a push to include all students in the general education setting [1,35].

Conclusions drawn from this study suggest that educator groups rated supports similarly, despite differences in Educator Rank and Type with the exception of one vignette. Recommendations to improve understanding of the social-ecological approach and assessing and implementing supports chosen from a comprehensive array of possible supports includes coursework at the pre-service level, trainings or workshops for practicing educators, and consultation with school team from researchers in the field of support needs. If educators are to value all categories of supports and thoroughly weigh the pros and cons when deciding which supports to implement, then something must be done in the way of educator training and consultative support to promote understanding and acceptance of this approach.

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