A Closer Look at the Impact of Special Education Advocacy Training on Graduates

by

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Abstract

As the special education process can be difficult for parents to navigate, special education advocates have arisen to help. Yet because there is no formal training required to become a special education advocate, there is a need to research how to best train these advocates. This study serves as part of a second wave of research into the effectiveness of a special education advocacy program. Looking at the pre-tests and post-tests of 108 participants across three years, this study found that there were certain areas of strength and weakness within measures of advocacy. Specifically, respondents rated lower items that included systems-change advocacy (such things as getting in contact with legislators and getting legislators to listen to their ideas). We also found that several measures—especially the degree to which they felt themselves "insiders" in the disability world and their degrees of empowerment--were correlated at the pretest, post-test, and pre-to-post-test measures. Implications for future advocacy trainings are discussed.

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A Closer Look at the Impact of Special Education Advocacy Training on Graduates

In the United States, students with disabilities have access to education through the Individuals with Disabilities Education Improvement Act (IDEA). This act ensures that students have the same rights to education as their typically developing peers. Under this law, this is known as free appropriate public education (FAPE).

To ensure that students have access to this right, parents of students with disabilities have access to protections under the law. These rights are known as Procedural Safeguards. Under these safeguards, parents have the right to ask for and receive an educational evaluation; to revoke consent at any time; to know why the school is implementing or refusing specific actions, to have an active role in decisions regarding their student's education; and to have the student receive their FAPE in the least restrictive environment (LRE). During each meeting discussing the student's Individualized Education Program (IEP), parents are offered a copy of these procedural safeguards. However, these safeguards are presented as they appear in the text of IDEA and may not be explicitly explained to parents, thus making it difficult for many parents to be full and equal members of the IEP team.

To become active members of the IEP, some parents have utilized the help of special education advocates. These advocates are people who are well-versed in special education laws and procedures. Advocates thus serve as a bridge between the parents, who may not have much knowledge or experience with the IEP process, and the other members of the IEP team, who tend to have more experience with the IEP system. These other members are also often perceived as having more authority on IEPs, such as the special education teachers, principals, related service providers, and general education teachers. As parents often default to the judgment of the other team members, they then are not fully participating in the IEP team as guaranteed by the law.

The special education advocate can then foster the relationship between the parents and the other IEP team members, as well as improve the trajectory of the student's educational career.

Because the role of an advocate does not require formal training, there has been a growing need for advocate training. These programs have helped train people on how to be effective educational advocates, with many participants being the parents of students with disabilities themselves. Through past research, these programs have been demonstrated to be helpful to parents. Burke et al. (2016), Goldman et al. (2020), and Goscicki et al. (2023) have all found positive impacts of advocacy training on certain skills important to special education advocacy.

A first set of studies demonstrates the multiple effects of advocacy training. Burke et al. (2016) found that, from the pre-to post-tests, the graduates of an advocacy training program made significant improvements in advocacy knowledge and advocacy comfort; this study also showed that graduates who were professionals made much greater improvements from the pre-to post-test than participants who were parents. Goldman et al. (2020) found that advocacy training graduates made significant pre-to-post-test improvements in special education knowledge, advocacy comfort, involvement, and empowerment.

These early studies also showed connections among different advocacy constructs. For example, participants' scores were often correlated among measures of advocacy knowledge, advocacy comfort, involvement, advocacy role, and empowerment (Goldman et al., 2020). In addition, Goscicki et al. (2023) identified strengths and weaknesses in an insiderness measure from special education training graduates, in addition to finding two sub-measures of insiderness, organizational involvement and social connectedness.

While together these studies provide a greater understanding of special education advocacy training, certain gaps still remain. In early studies, while certain measures were analyzed at pre-test, post-test, and pre-test-to-post-test, grit has not been analyzed as a construct by itself nor how it correlates to other measures. Originally developed by Duckworth et al. (2007), grit is defined as "perseverance and passion for long-term goals." Grit is of interest to special education advocacy training as the special education process can be difficult for advocates to navigate, so a high level of grit may be a desirable trait for special education advocates. Insiderness and its sub-measures also have not been correlated to the other measures.

In addition, prior advocacy training studies have paid less attention to items within various constructs. It may be helpful, for example, to identify which areas of knowledge remain difficult to teach, or which aspects of advocacy comfort or empowerment are higher or lower. Such information, to date missing in most special education advocacy studies, might help to improve future advocacy trainings and lead to more fine-grained future research.

This study, then, will seek to increase the understanding of how advocacy training affects participants' scores on specific subtests and how those subtests interact with each other. The specific research questions are: (1) Within the different constructs (grit, insiderness, empowerment, advocacy role, advocacy knowledge, and advocacy comfort) what items constitute strengths and weaknesses across participants?; (2) What are the correlations among constructs at a specific point in time (i.e., pretest, posttest, and pre-to-posttest)?; and (3) Are there connections of constructs from before advocacy training to after advocacy training?

Method

Participants

Participants included 108 graduates from an advocacy training program from 2020 to 2022. The vast majority of participants identified as female, and many having at least an undergraduate degree (Table 1). About 2/3 of participants were parents of individuals with disabilities; the next highest category was community service providers, at 22% of participants.

To qualify for this study, participants had to have fully completed the advocacy training program, meaning they attended at least 11 of the 12 sessions or submitted make-up work for missed sessions before the post-test. Participants also had to have a fully completed pre-and post-test. Any participants who did not fully answer every question or left a specific subtest blank were excluded from analyses. Participants were made aware that their data would be used to study the effectiveness of advocacy training.

Procedures

The training program of this study is the Volunteer Advocacy Program (VAP). The VAP is a 12-week, 36-hour training that covers content related to special education law and non-adversarial advocacy skills (Burke et al., 2016). Participants in the VAP were given a pre-test before receiving the training which had all of the construct measures and demographic measures. After the end of the advocacy training, participants complete a post-test linked to the pre-test.

Data from each year were then exported into a CSV file and combined with the other years into one large CSV file and uploaded to the Statistical Package for the Social Sciences (SPSS). Once in SPSS, each question was reviewed and recoded, if necessary. Data were then analyzed according to the research questions.

Measures

The pre-test and post-test were identical and included sections based on prior studies on the VAP training (Burke et al., 2016; Goldman et al., 2020; Goscicki et al., 2023) with the

addition of a grit measure (Duckworth & Quinn, 2009). Some sections related directly to training content (i.e., special education knowledge and advocacy comfort), while others used existing measures.

Table 1Participant Demographics.

	% Included (n = 108)
Gender	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Male	0.9
Female	99.1
Highest level of education	
High school graduate	3.7
Some college or AA degree	16.7
College degree	30.6
Graduate degree(s)	49.1
Self-described role(s)	
Individual with disability	7.4
Parent of a child with disability	67.6
Other family member of an individual with disability	13.0
School personnel	11.1
Community service provider	22.2
Residential service provider	0.9
Health care provider	11.1
Mental health care provider	7.4
Paraprofessional	0.9
Undergraduate or graduate student	7.4
College/university faculty	0.9
College/university staff	0.0
Other	13.0

Demographics

Participants were asked to answer questions about their gender and the highest level of education they had completed. Participants were also asked what roles they play related to the disability advocacy field; options included a parent of a child with a disability, school personnel,

an individual with a disability, and a community service provider, multiple roles could be checked.

Grit

We used Duckworth and Quinn's (2009) Grit-S scale to measure a participant's perseverance in completing their goals. The scale includes 8 questions answered on a Likert scale of 1 = not at all to 5 = very true. Questions include: "I finish whatever I begin," "I am diligent," and "I am a hard worker." The scales were recoded so that a higher sum score translates to a higher overall measure of grit. Previous to this paper, this construct has not been studied in VAP graduates, although it has been used in other studies (Duckworth & Quinn, 2009).

Insiderness

An 11-question measure was used to analyze insiderness with 6 questions relating to organizational involvement and the other 5 relating to social connectedness (Goscicki et al., 2023). Questions asking to what extent participants "belong to the local disability organizations," "belong to listservs, facebook, chat rooms, or other disability-related social media," and "have friends or socialize with parents of individuals with disabilities or individuals with disabilities themselves" Questions were answered on a Likert scale of 1 = not at all to 5 = very much so. A higher insiderness score indicated a stronger feeling of insiderness in the disability advocacy space. An item not included in the Goscicki (2023) study was added for the pre- and post-test across the years 2020-2022. The 11th item asked how much the participant felt they served as a mentor to others about disability advocacy. That question has not yet been analyzed on its own or in context of the scale as a whole.

Empowerment

There are many different types of empowerment, however, here we are only focused on empowerment as it relates to special education advocacy. We used a subsection of a larger scale developed by Koren et al. (1992) originally used for parents of children with emotional disturbances. Empowerment was measured in participants using a 10-question Likert scale from 1 = strongly disagree to 5 = strongly agree. A higher sum score in empowerment represents the participant having a stronger sense of empowerment. Empowerment measured how the participants felt in advocating for students with disabilities with statements such as "I feel I can have a part in improving services for children with disabilities in my community," "I understand how the service system for children with disabilities is organized," and "I help other families get the services they need for their children with disabilities." When studied previously, Goldman (2020) found a significant increase in empowerment for participants from the pre-test to the post-test.

Advocacy Role

We used a 5-item measure of volunteer advocate role identity to examine how much or little participants identified with advocacy as part of who they are (Authors, 2017, modified from Callero, 1985). The questions were answered using a 5-question Likert scale from 1 = strongly disagree to 5 = strongly agree. Similar to the grit construct, questions that were worded in a different direction such as "Advocacy is something I rarely think about" were recoded so that a higher sum score would indicate a higher level of role identification. Other questions included "For me, being an advocate means more than just advocating" and "I would feel at a loss if I had to give up advocacy."

Advocacy Knowledge

Unlike the other constructs, knowledge was measured using 15 multiple-choice questions. Sample questions include "How often is IDEA reauthorized," "What kind of assessment should precede a behavioral intervention plan," and "It is an option to take a break during an IEP meeting if emotions are running high." As correct answers were coded using a 1 and incorrect answers with a 0, the highest score a participant could receive was a 15. Questions were designed based on the VAP programming; ideally, participant's sum scores would increase from the pre-test to the post-test. Using a longer 30-item scale, Goldman et al. (2020) and Burke et al. (2016) found significant increases in scores from VAP pre- to post-test.

Advocacy Comfort

Used to see how comfortable participants felt in advocating for students with disabilities and their families, advocacy comfort was measured using a 10-question Likert scale from 1 = not at all to 5 = excellent (Authors, 2016). The scale's questions included "How knowledgeable do you think you are about your special education rights," "How able are you to assert yourself at special education meetings," and "How able are you to effectively participate at IEP meetings." Higher sum scores are associated with higher levels of comfort in advocating. Goldman et al. (2020) and Burke et al. (2016) both found significant increases in participants' scores from the pre- to post-test times.

Analysis

Strengths and Weaknesses Across Participants

To determine the strengths and weaknesses within the different constructs across participants, the participant's data were examined using a one-way repeated measures ANOVA for the constructs using a Likert scale and McNemar's test for the Knowledge test with dichotomous (yes-no) variables. From there, the questions with the highest and lowest scores

were compared to the other questions on the scale to determine if they were significantly different. We found a Grand Mean for each measure and the two insiderness factors. A one-way repeated measures ANOVA determined whether items demonstrated different mean values. A post-hoc analysis then compared the measures' means to the Grand Mean to test significance.

Correlations Within Constructs

The second research question examined the correlations among constructs. Correlation matrices were run with the participants' data at the pre-test test time and the post-test test time. Each scale's mean sum score was run against every other scale included in the test in addition to the two different insiderness sums- organizational and social.

Correlations Within Change Scores

We then looked further to see if constructs are related by the way they change across the training. We created a correlation matrix using the pre-to-post-test change scores from the participants' pre-test sums to their post-test sums.

Results

Strengths and Weaknesses Across Participants

Certain items in each subtest were significantly higher and lower than the other items in that construct. These are marked with "H" for high and "L" for low in each subtest's table. For grit, the items "I am diligent" and "I am a hard worker" were significantly higher (p < .001) than the grand mean at both pre-and post-tests, while "Setbacks don't discourage me" was significantly lower at both test times, see Table 2. The question "New ideas and projects sometimes distract me from previous ones" reserve-coded was significantly lower only at the post-test.

Table 2

Grit Scale.

	<u> </u>	M(SD)					
	DDT		DOCT		p	Change	Effec
	PRE		POST				Size
	(n = 108)		(n = 108)				
Please rate your agreement with the following statement:							
I often set a goal but later choose to	4.01		4.00		0.90	0.01	0.01
pursue a different one. ^	(0.69)		(0.71)			(0.79)	
I have been obsessed with a certain							
idea or project for a short time but	4.14		4.04		0.19	0.10	0.13
later lost interest. ^	(0.88)		(0.83)			(0.81)	
I have difficulty maintaining my focus							
on projects that take more than a few	4.25		4.21		0.67	0.04	0.04
months to complete. ^	(1.02)		(0.94)			(0.90)	
New ideas and projects sometimes	3.93		3.82	L	0.25	0.10	0.11
distract me from previous ones. ^	(0.97)		(0.91)	L	0.23	(0.91)	0.11
	4.11		4.01		0.25	0.10	0.11
I finish whatever I begin.	(0.70)		(0.82)			(0.91)	
	2.46		2.26	T	0.25	0.10	0.00
Setbacks don't discourage me.	3.46 (0.93)	L	3.36 (1.01)	L	0.35	0.10 (1.13)	0.09
	4.31	Н	4.33	Н	0.81	-0.02	-0.2
I am diligent.	(0.69)		(0.63)			(0.79)	
	4.52	Н	4.52	Н	1.00	0.00	0.00
I am a hard worker.	(0.70)		(0.59)			(0.77)	
	32.73(3.		32.30(4.		0.22	0.44	0.12
um Score	82)		10)			(3.68)	

Note. 1 = not at all, 2 = occasionally true, 3 = somewhat true, 4 = quite a bit, 5 = very true.

[^]Recoded to show same directionality and adherence to scale for all test items.

^{*}Significant

Table 3

Insiderness Scale.

			M (SD)				
	PRE	POS		p	Cl	hange	Effect Size
	= 108)	(n=1)	108)				
To what extent do you							
feel that you are an "insider" in the disability community in your local area?	2.85 (1.35)		3.12 (1.15)		0.006*	-0.27(1.00	0) -0.27
belong to the local disability organizations?	2.64 (1.42)	L	2.90 (1.37)	L	0.03*	-0.26(1.21	-0.21
devote your time to disability-related groups, causes, or activities?	3.19 (1.34)		3.41 (1.16)		0.05*	-0.21(1.14	-0.19
serve on boards, committees, or perform other leadership roles for one or more disability organizations?	2.31 (1.56)	L	2.53 (1.55)	L	0.01*	-0.22(0.90	0.25
know what is going on in terms of your area's disability initiatives or activities?	2.86 (1.18)		3.14 (1.05)		0.001*	-0.28(0.88	-0.31
receive newsletters, email alerts, or other written information from one or more disability organizations?	3.40 (1.35)	Н	3.67 (1.22)	Н	0.01*	-0.27(1.07	7) -0.25
belong to listservs, facebook, chat rooms or other disability-related social media?	3.57 (1.28)	Н	3.80 (1.15)	Н	0.03*	-0.22(1.07	7) -0.21
have a mentor that you frequently ask advice from about disability issues?	3.09 (1.38)		3.29 (1.35)		0.13	-0.19(1.32	2) -0.15
see disability organizations as the main cause or activity that you engage in?	2.78 (1.42)		3.11 (1.32)		0.007*	-0.33(1.26	5) -0.26
have friends or socialize with parents of individuals with disabilities or individuals with disabilities themselves?	3.69 (1.22)	Н	3.73 (1.15)	Н	0.73	-0.04(1.10	0) -0.03
serve as a mentor to others to give advice about disability Issues?	3.23 (1.24)		3.49 (1.18)		0.01*	-0.26(1.03	-0.25
Sum Score	33.62(11.1)		36.17(10.4)		<0.001*	-2.55(7.38	3) -0.35

Note. 1 = not at all, 2 = slightly, 3 = to some extent, 4 = quite a bit, 5 = very much so. *Significant

Table 4 *Empowerment Scale.*

		M (S	D)				
	PRE	,	POST				Effect
	(n = 108)		(n = 108)		p	Change	Size
Please rate your agreement with the following statement:							
I feel I can have a part in improving services for children						0.13	
with disabilities in my community.	4.61 (0.51)	Н	4.48 (0.56)	Н	0.02*	(0.57)	0.23
I believe that parents and advocates can have an influence						0.12	
on services for children with disabilities.	4.74 (0.46)	Н	4.62 (0.54)	Н	0.02*	(0.51)	0.24
I feel that my knowledge and experience can be used to							
improve services for children with disabilities and their						0.01	
families.	4.51 (0.60)	Н	4.50 (0.56)	Н	0.89	(0.66)	0.01
I understand how the service system for children with						-0.78	
disabilities is organized.	3.36 (1.04)	L	4.14 (0.68)		<0.001*	(0.90)	-0.86
I have ideas about the ideal service system for children						-0.46	
with Disabilities.	3.64 (0.97)		4.10 (0.63)		<0.001*	(0.91)	-0.51
I know how to get agency administrators or legislators to						-0.74	
listen to me.	2.91 (1.03)	L	3.65 (0.82)	L	<0.001*	(1.17)	-0.63
I know what the rights of parents and children are under						-0.74	
the special education laws	3.47 (0.93)		4.21 (0.49)	H	<0.001*	(0.89)	-0.83
I get in touch with my legislators when important bills or						-0.48	
issues concerning children with disabilities are pending.	2.80 (1.16)	L	3.28 (1.05)	L	<0.001*	(1.11)	-0.44
I help other families get the services they need for their						-0.34	
children with disabilities.	3.70 (1.07)		4.05 (0.86)		<0.001*	-0.34 (0.90)	-0.38
	2.70 (1.07)		(0.00)		0.001	,	0.50
I tell people in agencies and government how services for						-0.43	
children can be improved.	3.06 (1.24)	L	3.48 (1.03)	L	<0.001*	(1.22)	-0.35
						-3.71	
Sum Score	36.80(6.08)		40.51(4.78)		<0.001*	(5.29)	-0.70

Note. 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree.

Within the insiderness measure, belonging to a disability organization and serving on boards, committees, or performing other leadership roles for disability organizations were significantly lower at both pre-and post-posts; higher items included "Receive newsletters, email

^{*}Significant

alerts, or other written information from one or more disability organizations;" "belong to listservs, Facebook, chat rooms, or other disability-related social media;" and "have friends or socializing with parents of individuals with disabilities or individuals with disabilities themselves," see Table 3.

Table 5

Advocacy Role Scale.

		M (SD)				
	PRE		POST				Effect
	(n = 108)		(n = 108)		p	Change	Size
Please rate each of the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree)							
Advocacy is something I rarely think about. ^	4.61 (0.80)	Н	4.56 (0.88)	Н	0.53	0.61 (0.97)	0.06
I would feel at a loss if I had to give up advocacy.	3.72 (1.14)	L	3.47 (1.29)	L	0.07	0.25 (1.42)	0.18
I really don't have any clear feelings about volunteering as an advocate. ^	4.41 (0.88)		4.31 (1.06)		0.29	0.11 (1.08)	0.10
For me, being an advocate means more than just advocating.	4.44 (0.89)		4.34 (0.99)		0.35	0.09 (1.03)	0.09
Volunteering as an advocate is an important part of who I am.	4.13 (0.89)		4.06 (1.08)		0.37	0.07 (0.86)	0.9
Sum Score	21.31(3.12)		20.73(3.56)		0.02	0.58 (2.60)	0.22

Note. 1 = strongly disagree, 2 = disagree somewhat, 3 = neither agree nor disagree, 4 = agree somewhat, 5 = strongly agree.

For empowerment, items that were significantly higher at both pre-and post-tests include "I feel I can have a part in improving services for children with disabilities in my community," "I believe that parents and advocates can have an influence on services for children with disabilities," and "I feel that my knowledge and experience can be used to improve services for

[^]Recoded to show same directionality and adherence to scale for all test items.

^{*}Significant

Table 6Advocacy Knowledge Scale.

navocacy inowicage scare.	M	(SD)				
	PRE $(n = 108)$	$ POST \\ (n = 108) $	McNemar	p	Change	Effect Size
Please answer the following questions to the best of your ability	(100)	(1100)				SIZC
	0.67	0.74			-0.07	
At what level, does the federal government fund IDEA?	(0.47)	(0.44)	0.268	0.21	(0.61)	-0.12
In Tennessee, what are your options for representation at a	0.86	0.92			-0.06	
due process hearing?	(0.35)	(0.28)	0.263	0.18	(0.43)	-0.13
	0.45	0.37			0.08	
How often is IDEA reauthorized?	(0.14)	(0.49)	0.150	0.11	(0.53)	0.16
	0.02	0.28			-0.01	
In Tennessee, what age range does IDEA Part B cover?	(0.14)	(0.17)	1.00	0.57	(0.17)	-0.06
What is the school's obligation to do with an evaluation at	0.74	0.88			-0.14	
private expense?	(0.44)	(0.33)	0.004	0.002*	(0.46)	-0.30
How long can students with disabilities be removed from	0.50	0.65			-0.15	
school without receiving services?	(0.50)	(0.48)	0.020	0.01	(0.61)	-0.24
	0.38	0.59			-0.21	
At what age does a transition plan need to be in place?	(0.49)	(0.59)	<0.001*	<0.001*	(0.60)	-0.36
Which option does not allow a school attorney to be	0.09	0.13			-0.04	
present unless there is a parent attorney?	(0.29)	(0.34)	0.481	0.35	(0.41)	-0.09
	0.76	0.78			-0.02	
Which of the following terms are not in the law?	(0.43)	(0.42)	0.824	0.66	(0.43)	-0.04
What kind of assessment should precede a behavioral	0.84	0.97			-0.13	
intervention plan?	(0.37)	(0.17)	<0.001*	<0.001*	(0.36)	-0.36
What seating arrangement at an IEP meeting would best	0.85	0.85			0.00	
help facilitate a collaborative meeting?	(0.36)	(0.36)	1.00	1.00	(0.43)	0.00
Bringing food to an IEP meeting may help to alleviate	0.50	0.70			-0.20	
tension.	(0.50)	(0.46)	<0.001*	<0.001*	(0.49)	-0.42
It is an option to take a break during an IEP meeting if	0.99	0.99			0.00	
emotions are running high.	(0.10)	(0.10)	1.00	1.00	(0.14)	0.00
Which of the following is important for an advocate to do	0.98	1.00			-0.02	
in advance of an IEP meeting?	(0.14)	(0.00)		0.16	(0.14)	-0.14
	0.88	0.91			-0.03	
After an IEP meeting, it is recommended that the advocate:	(0.33)	(0.29)	0.453	0.26	(0.25)	-0.11
	9.52	10.51			-0.99	
Sum Score	(1.68)	(1.57)		<0.001*	(1.91)	-0.52

Note. All questions were given in the multiple-choice format except for two true or false questions. All answers were recoded into 1=correct answer, 0=incorrect answer. *Significant

Table 7Advocacy Comfort Scale.

		1	M (SD)				
	PRE		POST				Effec
	(n = 108)		(n = 108)		p	Change	Size
lease answer the following questions on a scale rom 1 (not at all) to 5 (excellent).							
How knowledgeable do you think you are about your special education rights?	3.12 (0.82)	L	3.82 (0.67)	L	<0.001*	-0.70(0.78)	-0.91
How able are you to apply your rights and knowledge of the law in special education meetings?	3.11 (0.89)	L	3.85 (0.72)	L	<0.001*	-0.74(0.85)	-0.88
How able are you to advocate for a child's educational needs at special education meetings?	3.35 (0.93)	L	4.02 (0.63)		<0.001*	0.67(0.89)	-0.7:
How able are you to assert yourself at special education meetings?	3.70 (1.03)		4.09 (0.63)		<0.001*	-0.39(0.96)	-0.4
How well are you able to communicate effectively with the school?	3.89 (0.82)	Н	4.25 (0.58)	Н	<0.001*	-0.36(0.79)	-0.4
How well do you think you stay calm and non-adversarial at school meetings?	4.06 (0.81)	Н	4.28 (0.64)	Н	0.005*	-0.22(0.81)	-0.2
What is your self-confidence like in terms of working with the school?	3.86 (0.93)	Н	4.17 (0.70)		<0.001*	-0.31(0.85)	-0.30
What is your working relationship like with the school?	3.90 (0.77)	Н	4.12 (0.76)		0.007*	-0.22(0.84)	-0.2
How able are you to effectively participate at IEP meetings?	4.03 (0.83)	Н	4.28 (0.65)	Н	0.002*	-0.25(0.83)	-0.30
How prepared do you feel to collaborate with the school at IEP meetings?	3.65 (0.99)		4.19 (0.67)		<0.001*	-0.54(0.97)	-0.55
um Score	36.67(6.49)		41.06(5.15)		<0.001*	-4.40(5.69)	-0.7

Note. 1 = not at all, 2 = below average, 3 = average, 4 = good, 5 = excellent.

^{*}Significant

for children with disabilities and their families," see Table 4. The items that were significantly lower than the grand mean—at both the pre- and post-test times—all involved changing the larger disability system. These items included "I know how to get agency administrators or legislators to listen to me," "I get in touch with my legislators when important bills or issues concerning children with disabilities are pending," and "I tell people in agencies and government how services for children can be improved."

In the advocacy role measure, "Advocacy is something I rarely think about" reservecoded was significantly higher than the grand mean at the pre-and post-test times while "I would feel at a loss if I had to give up advocacy" was significantly lower than the grand mean at the pre-and post-test levels, see Table 5.

The advocacy comfort measure's significantly lower questions at both pre-and post-tests included the questions about knowledge of special education rights and applying rights, see Table 7. Effective communication with schools, remaining calm and non-adversarial, and participating in IEP meetings were significantly lower than the grand mean at the pre-test level. The items "What is your self-confidence like in terms of working with the school" and "What is your working relationship like with the school" were significantly higher than the grand mean at the pre-test only.

Correlations Within Constructs

The correlations at the pre-test and the post-test level showed that some subtests were significantly related, while others were not, see Tables 8 and 9. At the pre-test, empowerment was significantly correlated to insiderness (including both its sub-measures), advocacy role, and advocacy comfort. Advocacy role and advocacy comfort were also correlated to every measure except grit and advocacy knowledge. At the post-test, almost every measure was correlated to

each other with the exception of advocacy knowledge which did not correlate to any other measure, and the insiderness organizational sub-measure which did not correlate to grit.

Table 8

Pre-test Correlation Matrix.

	Variable	M	SD	1	2	3	4	5	6	7	8
1.	Grit Sum	32.73	3.82	-							
2.	Insiderness Sum	33.62	11.10	0.089	-						
3.	Insiderness Organizational Sum	16.63	6.90	0.030	0.964*	-					
4.	Insiderness Social Sum	16.99	4.97	0.159	0.910*	0.744*	-				
5.	Empowerment Sum	36.80	6.08	0.200	0.635*	0.557*	0.645*	-			
6.	Advocacy Role Sum	21.31	3.12	0.113	0.399*	0.400*	0.337*	0.458*	-		
7.	Advocacy Knowledge Sum	9.52	1.68	0.091	0.112	0.130	0.071	0.069	-0.007	-	
8.	Advocacy Comfort Sum	36.67	6.49	0.131	0.326*	0.287*	0.330*	0.550*	0.269*	0.061	-

Note. n=108

The strongest correlations were empowerment and insiderness, with correlations of r = 0.635 at the pre-test and r = 0.618 at the post-test; empowerment was also highly correlated with insiderness' sub-measures. See Figure 1 for the scatter plot of empowerment and insiderness, both at the time of the pre-test. Comparing those with the highest empowerment scores (\geq 40; n = 32) vs. the lowest (\leq 30; n = 15), insiderness scores were higher for those with high

^{*}Significant at the 0.01 level (2-tailed).

empowerment scores (m = 3.84; SD = 0.88) versus low empowerment scores (m = 1.7855; SD = 0.38); t (45) = 10.39, p = < 0.01. The same was true for insiderness-organizational scores for those with high empowerment scores (m = 3.64; SD = 0.88) versus low empowerment scores (m = 1.47; SD = 0.46); t (45) = 8.98, p = <0.01. There were similar findings for insiderness-social scores for those with high empowerment scores (m = 4.07; SD = 0.61) versus low empowerment scores (m = 2.17; SD = 0.83); t (45) = 8.84, p = <0.01.

Table 9Post-test Correlation Matrix.

	Variable	М	SD	1	2	3	4	5	6	7	8
1.	Grit Sum	32.30	4.10	-							
2.	Insiderness Sum	36.17	10.4	0.262*	-						
3.	Insiderness Organizational Sum	18.20	6.18	0.196	0.967*	-					
4.	Insiderness Social Sum	17.97	4.71	0.323*	0.942*	0.826*	-				
5.	Empowerment Sum	40.51	4.78	0.369*	0.618*	0.587*	0.596*	-			
6.	Advocacy Role Sum	20.73	3.56	0.275*	0.358*	0.335*	0.352*	0.463*	-		
7.	Advocacy Knowledge Sum	10.51	1.57	-0.057	-0.032	-0.041	-0.017	-0.042	0.030	-	
8.		41.06	5.15	0.306*	0.322*	0.313*	0.301*	0.443*	0.428*	0.085	-

Note. n=108

Correlations Within Change Scores

^{*}Significant at the 0.01 level (2-tailed).

Several of the measures' change scores were also significantly correlated, see Table 10.

The highest correlation of pre-to-post-test change scores were again between empowerment and insiderness (including its sub-measures).

Table 10Pre-to-Post Test Correlation Matrix.

	Variable	M	SD	1	2	3	4	5	6	7	8
1.	Grit Change Sum	0.44	3.68	-							
2.	Insiderness Change Sum	-2.55	7.38	0.267*	-						
3.	Insiderness Organizational Change Sum	-1.57	4.04	0.231	0.914*	-					
4.	Insiderness Social Change Sum	-0.98	4.04	0.258*	0.914*	0.670*	-				
5.	Empowerment Change Sum	-3.71	5.29	0.285*	0.518*	0.417*	0.531*	-			
6.	Advocacy Role Change Sum	0.58	2.60	0.361*	0.148	0.151	0.120	0.225	-		
7.	Advocacy Knowledge Change Sum	-0.99	1.91	0.034	0.014	0.085	-0.058	-0.069	-0.052	-	
8.	Advocacy Comfort Change Sum	-4.40	5.69	0.024	0.310*	0.317*	0.250*	0.463*	0.078	0.113	-

Note. n=108

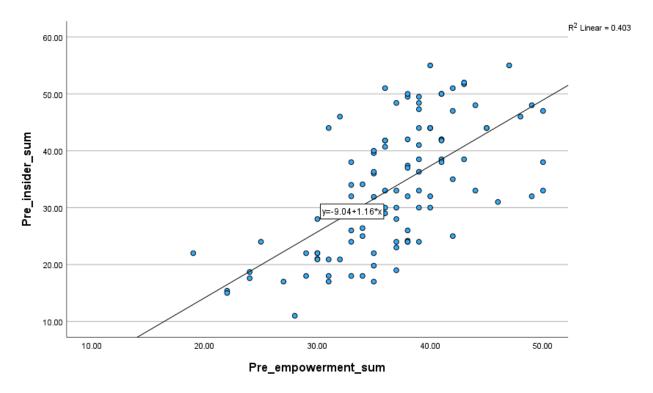
Discussion

Special education advocate training programs are increasingly being used to train advocates to help parents with the IEP process. These trainings have proven to be successful, yet

^{*}Significant at the 0.01 level (2-tailed).

Figure 1

Empowerment and Insiderness Pre-test Correlation.



many important questions still remain. As part of a second phase of research, this study expands on current findings, determining pre- to post-test changes of constructs and the relations to other constructs of such important constructs as grit and insiderness. There were three main findings from this study.

First, in comparing each question on the measures to their corresponding Grand Means, we were able to tell which items were highest and lowest for participants at both pre-and post-tests, as well as how those changed from the pre-test to the post-test. Whereas questions that started and ended as a strength may be reflective of the participant sample and not the training itself, questions that were high at the post-test and not the pre-test may indicate an area of strength for the advocacy training. For example, the item "I know what the rights of parents and children are under the special education laws" from the empowerment scale implies that the

course did a sufficient job teaching those skills. Another way you can see if the training was effective is if an item was a weakness at the pre-test level but not at the post-test level such as with "I understand how the service system for children with disabilities is organized."

But most interesting were the questions that were rated as weaknesses at both the pre-and post-tests. Keeping with the empowerment scale, these items included "I know how to get agency administrators or legislators to listen to me," "I get in touch with my legislators when important bills or issues concerning children with disabilities are pending," and "I tell people in agencies and government how services for children can be improved." These questions all related to the theme of systems change, as both involve contacting agencies and the government about issues surrounding children with disabilities. As scores remained consistently low at both the pre-test and post-test, advocacy trainings may need to focus more on such systems-change topics in future trainings.

Additional items on each scale also started and remained low. For grit, we highlighted the question "Setbacks don't discourage me." The insiderness scale had both questions about belonging to disability organizations and serving on boards that remained low. For advocacy comfort, consistently low items included "How knowledgeable do you think you are about your special education rights" and "How able are you to apply your rights and knowledge of the law in special education meetings." The advocacy comfort items are particularly interesting because despite being a consistent weakness, the change scores for the two were some of the highest across all constructs. In essence, while participants did report growth it was still not an area they felt comfortable in.

Our second major finding was in the correlations at the pre-and post-test. The strongest correlation at the pre-test and at the post-test was between empowerment and insiderness

(including the organizational and social subscales). Each correlation between empowerment and insiderness in the pre- and post-test period fell in the moderately correlated range (0.50 < r < 0.70), whereas the majority of the other constructs showed low-to-moderate correlations (0.30 < r < 0.50) This correlation may imply the importance of disability insiderness to VAP attendees' feelings of empowerment. Again, slight tweaks might be warranted in the yearly VAP program.

The third major finding concerned correlations of the measures' pre-to-post-test scores.

There were a few low correlations between grit and the other measures as well as advocacy comfort and the other measures. Keeping with the above findings, the strongest correlations were moderate correlations between empowerment and insiderness and one of the insiderness submeasures.

These findings are also in line with other studies that have been completed on the VAP. In line with Burke et al. (2016) and Goldman et al. (2020), we found that program graduates made significant improvements in empowerment and advocacy comfort from the pre to post-test. In the added measures of grit and insiderness, insiderness showed significant improvements while grit did not. Similar to Goldman et al. (2020), we found that empowerment had significant correlations with other measures. Interestingly, when looking at the strengths and weaknesses of each scale, the items identified on the insiderness scale were the same strengths and weaknesses that Goscicki et al. (2023) identified, which may indicate that these are consistent strengths and weaknesses in the VAP programming across years.

Implications for Practice

This study has implications that can inform future VAP and other special education advocacy training programs. For example, a consistent weakness of participants from the pre-to post-test is knowledge of how to reach out to the government and agencies to help students with

disabilities. A potential way to improve such system-change measures would be by having more speakers who work for agencies on how to go about requesting support and asking questions. Workshops might include a panel of speakers or just a couple from select agencies. Another way to improve these specific questions would be to have current speakers from agencies spend more time on how to reach out to their agencies. Lastly, there could even be a session on how to tell when it becomes necessary to reach out to agencies or government entities and how to contact agencies, through email, phone, or in person.

A particularly important implication for the future is the correlation between empowerment and insiderness, especially considering the relationship between the highest empowerment scores and the highest insiderness scores versus the lowest empowerment scores and the lowest insiderness scores. Although certain parts of empowerment may be more difficult to explicitly teach, focusing on the skills of each measure that can be more explicitly taught can help both measures' scores improve and thus improve the outcomes of training graduates. For example, "I have ideas about the ideal service system for children with Disabilities" on the empowerment scale is more abstract and may not be able to be taught (especially as everyone has different opinions on what an ideal system looks like). In contrast, "know[ing] what is going on in terms of your area's disability initiatives or activities" and "belong[ing] to listservs, Facebook, chat rooms, or other disability-related social media" can be addressed explicitly during a training program.

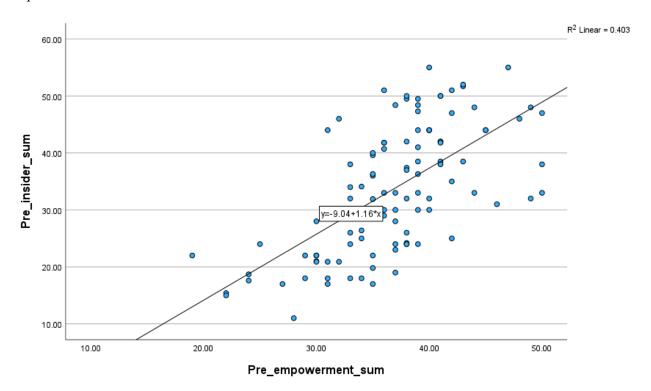
Limitations

There were some limitations of this study that can and should be focused on in further research to continue to improve outcomes of special education advocacy training. For instance, we did not look further into how demographics impacted the outcomes of graduates. Our sample

was mainly filled with people who identified as female, college graduates, and parents of students with disabilities. While self-selection likely occurs in relation to who that signs up for a 12-week training course, future efforts should be made to expand the VAP participants. Such wider diversity of race and ethnicity may or may not affect outcomes, something we were unable to analyze in the current study. Another limitation of this study was the lack of a control group. Further research on special education advocacy training programs would benefit from including a control group of people who did not receive the intervention of the training. This inclusion would lead to stronger findings and the ability to rule out outside factors on the changes from the pre-to post-tests.

Figure 1

Empowerment and Insiderness Pre-test Correlation.



Conclusion

Despite these limitations, this study serves as an important step in researching special education advocacy training program outcomes. Our findings provide insight into the strengths and weaknesses of the VAP program that can be used to improve its programming in the future and help other special education advocacy trainings guide their own programming. Many of our results are in line with previous research on the topic while adding the concepts of grit and insiderness which can provide a deeper insight into aspects of the program. Although additional research is needed to determine how special education training programs affect certain demographics, this study serves as an important steppingstone in the growing research on the topic.

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