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In support of our mission, there are no fees to submit or publish manuscripts so that cost will never be a barrier. Typeset and graphics are intentionally simple in order that the journal can be more easily accessed on a variety of devices worldwide to fulfill the mission of the journal.

I hope that the practices discussed in this journal will be helpful to you, our readers.

Sincerely,

Ann Cancilla Gaudino, Ed.D., Founder and Editor-in-Chief
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TABLE OF CONTENTS

Students' Perceptions of Active Engagement in an Online Learning Environment During Emergency Remote Teaching: Implications for Online Engagement Framework

Abdulsalami Ibrahim, Nicole Buse, Deborah Tamakloe

Abstract

The increase in enrollment of students in an online course or taking some classes online indicates an utmost need for faculty to devise means of delivering meaningful and engaging online instruction. Instruction needs to be engaging in ways that make sense to the generation of students in our college classrooms. The outbreak of the COVID-19 pandemic in the spring of 2020 presented educational systems with an unprecedented challenge of migrating to entirely online/remote education. Educators across all levels faced the challenge of creating emergency online teaching. This study explored students' perception of active engagement strategies adopted by educators in emergency remote teaching during the pandemic. Findings revealed that while educators devised several ways of engaging students during this critical time, students expressed very few elements of social, behavioral, and emotional engagement across the board in all courses during the COVID-19 pandemic online/remote learning.

Keywords: Online Learning, Emergency Remote Teaching, COVID-19 Pandemic

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Introduction and Background

The generation of students on our college campuses has presented different challenges to educators because they learn and think differently than the generation of educators teaching them. They were born and raised in the technology-rich era, where technology was an integral part of their lives. Technology shapes how they think, communicate, interact, and learn. Prensky (2001) points out that "our students today are all *native speakers* of the digital language of computers, video games, and the Internet" (p.1). These, therefore, accorded them the ability to fit well into the technological era of the twenty-first century. Conrad and Donaldson (2012) explain that "a significant element in meeting the instructional needs of the twenty-first-century learners is to discover effective ways to reach the individual in the context of diverse technology-enhanced opportunities" (p. 3). Therefore, educators must integrate technology fully into their teaching and learning processes in ways that make sense to the generation of students for successful navigation on college campuses. Effective technology integration is a challenge for educators born and trained when technology was not available for teaching and learning during their time in school. This lack of technological knowledge is a threat to education because "our instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language" (Prensky, 2001, p. 2). These challenges are not only limited to learning in face-to-face classrooms but also in our online classrooms.

This paper begins with a review of related literature and the theoretical framework that shapes the conduct of this study. Following this, researchers discuss the significance of the study and the problem explored. Subsequently, researchers raise and discuss the purpose of the study and research questions that guide the conduct of this study. Successively, researchers explain the

methodology used in this study. Lastly, researchers discuss the study's findings and the implications for educators, students, and educational administrators.

Literature Review and Theoretical Framework

Around the world, online education is on the rise. Lederman (2018) reports that, in the United States, there was an increase in the number of college and university students enrolled in online classes in the 2017 academic year. To buttress this point, Lederman (2018) explains:

> The proportion of all students who were enrolled exclusively online grew to 15.4 percent (up from 14.7 percent in 2016), or about one in six students. The share of all students who mixed online and in-person courses grew slightly faster, to 17.6 percent in 2017 from 16.4 percent in 2016. Moreover, the proportion of all students who took at least one course online grew to 33.1 percent from 31.1 percent in 2016. (p. 2)

The increase in the enrollment of students in online courses indicates an utmost need for faculty to devise means of delivering meaningful and engaging online instruction; instruction that is engaging in ways that makes sense to the generation of students in our college classrooms. Doing so will make a learning atmosphere conducive to how students interact with one another and the faculty (Zhao et al., 2016). Creating this environment could be challenging because faculty seldom try to understand what makes sense to students. Most faculty treat students as passive receivers of information in an online learning environment. Some faculty members express their engagement by only having a lively discussion board that students frequently visit to participate in the ongoing discussion, consequently ignoring other aspects of engagement like social, behavioral, and emotional and how they facilitate students' learning.

The outbreak of the COVID-19 pandemic in the spring of 2020 presented educational systems with an unprecedented challenge of migrating to entirely online/remote education.

Educators across all levels faced the challenge of creating emergency online teaching (Marshall et al., 2020). While regular online instruction is rewarding, it presents some challenges, especially to novice educators who would have to deal with "increased workloads, using technology, communicating with students, organizing synchronous sessions and measuring students' outcomes" (Marshall et al., 2020 para. 3). Marshall et al. (2020) elucidate that the unprecedented migration to online teaching due to the COVID-19 global pandemic was not online instruction per se – it is more accurate to describe it as 'emergency remote teaching' (ERT). Hodges et al. (2020) describe emergency remote teaching (ERT) as:

> A temporary shift of instructional delivery to an alternative mode due to crises. It involves using fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as a blended or hybrid course, which will return to that format once the crisis or emergency has abated. (p. 7)

Before the COVID-19 pandemic, some countries worldwide experienced school and university closures. For example, Afghanistan experienced education during a crisis where the country faced disruption due to conflicts whereby schools and the education system were targets. The country as a whole has turned to "mobile learning, radio, blended learning, or other solutions that are contextually more feasible" (Hodges et al., 2020, para. 3). During the COVID-19 pandemic, challenges faced by novice online teachers during emergency remote teaching (ERT) exacerbated as compared to those in regular planned online teaching (Hodges et al., 2020; Leech et al., 2021).

Theoretical Framework: Online Engagement Framework

Several factors determine student engagement in an online learning environment. Mandernach (2009) opines that those factors include the instructor's connection with students,

the design of an active online learning environment where students feel welcome and cared for, and the instructor's presence. Consequently, Young and Bruce (2011) defined student engagement as "the interest and motivation students have in their own learning of course content" (p. 20). Bowen (2005) argues that it is challenging to conceptualize student engagement in an online learning environment. Several researchers have explored and discussed a specific element of engagement in an online learning environment, including social, cognitive, behavioral, collaborative, and emotional (Pittaway & Moss, 2014; Sinha et al., 2015; Vogt, 2016; Weimer, 2016;).

In this study, the researchers adopted Redmond, Hefferman, Abawi, Brown, and Henderson's (2018) online engagement framework for higher education. According to Redmond, Abawi, Brown, Henderson, and Hefferman (2018), the online engagement framework for higher education is a "multidimensional construct within interrelated elements that impact student engagement in online settings" (p. 189). Redmond, Hefferman, Abawi, Brown, and Henderson (2018) proposed an online engagement framework that includes five elements that are desirable in determining the high level of engagement in an online environment. They are social engagement, cognitive engagement, behavioral engagement, collaborative engagement, and emotional engagement. In contrast, student engagement in a face-to-face environment is limited to three areas of engagement: behavioral, emotional, and cognitive. They added that these "are crucial for effective student engagement within the online learning and teaching environment" (p. 189). Table 1 presents the five elements of the online engagement framework.

Table 1

Online Engagement Framework for Higher Education

Online Engagement Element	Indicators
Social engagement	• Building community • Creating a sense of belonging • Developing relationships • Establishing trust
Cognitive engagement	• Thinking critically • Activating metacognition • Integrating ideas • Justifying decisions • Developing deep discipline understanding • Distributing expertise
Behavioral engagement	• Developing academic skills • Identifying opportunities and challenges • Developing multidisciplinary skills • Developing agency • Upholding online learning norms • Supporting and encouraging peers
Collaborative engagement	• Learning with peers • Relating to faculty members • Connecting to institutional opportunities • Developing professional networks
Emotional engagement	• Managing expectations • Articulating assumptions • Recognizing motivations • Committing to learning

Redmond, Abawi, Brown, Henderson, & Hefferman (2018) explain these elements as follows:

1. Social engagement is the "students' social investment in the collegiate experience" (Knight in Redmond et al., 2018, p. 191). In an online learning environment, social engagement can be “illustrated through actions that build community such as social forums and open communication platforms. It includes the development of relationships with peers and instructors, whether via friendships, and interactions beyond study

requirements or effective working and studying relationships" (Redmond et al., 2018, p. 19).

2. Cognitive engagement is the active learning process, the most central form of engagement (Bowen, 2005). The literature must clearly define cognitive engagement, encompassing many elements crucial to learning motivation to learn, values, beliefs, metacognition, and self-regulation (Redmond et al., 2018).
3. Behavioral engagement is the academic engagement (Pittaway & Moss, 2014). It enables students to develop academic skills that would determine their success in achieving learning outcomes. Behavioral engagement is characterized by a student's passion and conduct within the learning environment. Students demonstrate this through their attitude to learning, high involvement, and active class participation (Redmond et al., 2018).
4. Collaborative engagement: This is related to "the development of different relationships and networks that support learning, including collaboration with peers, instructors, industry, and the educational institution" (Redmond et al., 2018, p. 194).
5. Emotional engagement is "students' emotional reaction to learning. It is related to their feelings or attitudes towards learning and is attributed to the affective or emotional component of engagement" (Redmond et al., 2018, p. 195).

Redmond et al. (2018) suggest that utilizing this framework would enable educators to reflect on students' engagement strategies in their online courses, thus enabling them to make appropriate changes where necessary (Redmond et al., 2018). The justification for using this framework in this study is to explore students' perceptions of engagement in an online environment from the viewpoint of social engagement, cognitive engagement, collaborative engagement, and emotional engagement.

Significance of the Study

Teaching online can be more challenging than in a traditional face-to-face setting. In a face-to-face classroom, students interact with peers, faculty, and the learning community within the school. A striking difference with an online environment is that this interaction is mainly text-based (Bejerano, 2008). While faculty have the freedom to use several ways and means to engage students, allowing them to take ownership of their learning and participate in knowledge construction, students do not have this opportunity to participate in online courses. This study enables students to express their experiences and needs and ways to keep them focused and engaged in an online learning environment. Findings from this study will serve the following significance:

1. Findings would provide educators with an understanding of students' learning preferences in an online environment and address them coherently.
2. Findings enable educators to devise a means of engaging students in ways that make sense to them for effective learning in an online environment.
3. Findings would also benefit students in their learning experiences in an online environment.

The Problem, Purpose, and Research Questions

The Internet and the web have brought an all-encompassing transformation in higher education and education in general (Martin & Bolliger, 2018). Pittinsky (2003) pointed out that combining knowledge and technology enables educational institutions to provide students with learning anytime and place. While the Internet and abundance of technology presented educators with the avenue to teach remotely and for students to learn, the ongoing COVID-19 global pandemic disrupted the delivery of educational services around the globe. Marshall et al. (2020)

described that "the extraordinary circumstances teachers faced in light of the pandemic prevented them – and their students – from making a normal transition to remote education" (para. 6). Educators face many challenges in an online learning environment. They include the struggle to get students engaged with coursework (Paepe et al. (2018); lack of familiarity with technology tools for remote teaching (Blagg & Luetmer, 2020); and educators' digital divide – where educators have varying degrees of comfort with using technology for teaching (Saad & Sankara, 2020).

Educators' prior teaching experience in an online environment could determine their success during emergency remote teaching. Studies have shown that many educators had never taught in an online learning environment before the unprecedented transition to remote instruction during the COVID-19 pandemic in the spring of 2020 (Educators of Excellence, 2020; Marshall et al., 2020), which could significantly affect their practice of maintaining active engagement. Dixson (2010) studied students' perception of active engagement in an online environment and arrived at three conclusions: "1) online instruction can be as effective as traditional instruction; 2) to do so, online courses need cooperative/collaborative (active) learning and 3) strong instructor presence" (p. 1). For successful emergency remote teaching, educators need to understand students' perception of active engagement and devise a means to use those strategies and engage their students for maximum learning.

Research in students' active engagement during emergency remote teaching is developing. This study explored students' perceptions of engagement in online courses and whether they felt their faculty were engaging them in an online learning environment, especially during the unprecedented remote learning prompted by the COVID-19 pandemic. Similarly, it

explored students' perceptions of active engagement strategies and their perceptions of these strategies as appealing and engaging. The following research questions guided this study:

1. What is students' understanding of active engagement in an online environment?
2. In what ways are students engaged in an online environment?
3. In what ways would students prefer to be engaged in an online environment?
4. Is there a relationship between faculty presence and students' perception of engagement in an online environment?

Methodology

This study employs an explanatory research design to explain students' perceptions of active engagement in an online learning environment. Researchers adopted the survey method to obtain rich data in the sense that participants could provide a detailed account of their online learning experiences during emergency remote teaching prompted by the COVID-19 pandemic and what active engagement meant.

Population and Sampling Techniques and Data Collection

The population for this study was comprised of preservice teachers in various education programs in Early Childhood/Special Education, Middle Level, and Secondary Education programs in a mid-size public university on the East Coast of the United States. The sample comprised only preservice teachers enrolled in one or more online courses before spring 2020 (before the migration to emergency remote teaching due to the COVID-19 pandemic). It continued during the pandemic through the spring 2021 semester.

Instrumentation and Data Collection

Researchers developed an instrument entitled *Students' Perceptions of Active Engagement in an Online Environment Survey.* This instrument contained 15 items to elicit

responses. Some questions were Likert-Scale items, and others were open-ended questions organized into three sections: 1) Students' understanding of active engagement, 2) Students' perceptions of active engagement strategies by professors, 3) Students' preferred ways of engagement, and 4) the demographic section. The demographic section was necessary because it enabled researchers to categorize data and findings based on the generated themes. Researchers conducted content-related evidence (face validity) testing of the instrument (Siegle, 2015). Siegle (2015) explains that content-related validity is obtained when "specialists in the content measured by the instrument are asked to judge the appropriateness of the items on the instrument" (para. 1). They ask a specific question about the instrument to measure content-related evidence – "Do they cover the breadth of the content area (does the instrument contain a representative sample of the content being assessed? Are they in a format that is appropriate for those using the instruments?" (Siegle, 2015, para. 1).

Researchers obtained the face validity of the instrument by giving it to colleagues and experts in the field of online education and teacher education. Researchers refined the final version of the instrument used for data collection from feedback and critiques from experts in the area. Researchers administered the survey online on Qualtrics at the end of each semester (spring 2020, fall 2020, and spring 2021). Item number one of this survey was an informed consent form, where students could choose to participate voluntarily or decline to participate and withdraw from the survey at any time. Those responses were removed from the data set. One hundred and two students responded to the survey, and researchers conducted a data clean-up before data analysis. After the data was cleaned, 89 (90.8%) of respondents completed the survey and were considered valid for data analysis.

Data Analysis and Results

Researchers exported the survey data from Qualtrics to Statistical Software for the Social Sciences (SPSS) for data analysis. In this section, researchers present the results of analysis from both quantitative and qualitative responses generated. Researchers showed the qualitative responses using thematic analysis techniques and created themes and codes. Miller (2023) opines that thematic analysis is a qualitative analysis method that enables researchers to "identify patterns, or themes within a given data set" (para. 1). Moreover, thematic analysis is "independent of any specific theoretical framework, so it provides researchers the flexibility to apply any paradigm to their analysis" (Miller, 2023, para. 1). In this study, researchers applied thematic analysis across qualitative data generated from all open-ended questions. Researchers present sample quotes (meaning units) in all places that require showing them to strengthen the discussion.

Presentation of Results

This study aimed to investigate students' perceptions of active engagement strategies adopted by educators during emergency remote teaching. Also, the study explored if students perceived these strategies as appealing and engaging. In this section, researchers organize and present results as constructs from each research question. Researchers conduct a thematic analysis of each construct based on five online engagement framework constructs. A theme was created for each construct, and several references related to that theme were generated to show how many respondents referenced that theme. Additionally, researchers present a few sample quotes to buttress the references.

Demographic Characteristics of Respondents

The survey captured a range of students across every level/year of study. The majority of respondents were sophomores (n = 41, 46.0%), followed by freshmen (n = 38, 42.7%). The remaining seven (7.9%) and two (2.3%) respondents were juniors and seniors. Of the 89 respondents, only one (1.1%) was a graduate student. Knowing how many courses preservice teachers have taken remotely or virtually is essential. Table 2 presents findings related to some demographic characteristics of respondents.

Table 2

Number of Remote/online courses taken during the Pandemic and Level of Study

Have you taken a remote/online course before the pandemic?	**Yes n (%)**			**No n (%)**	
	26 (29.2)			63 (70.8)	
# of Courses	One course n (%)	Two courses n (%)	Three courses n (%)	Four courses n (%)	Five and above n (%)
# of courses taken online BEFORE the pandemic.	9 (10.1)	12 (13.5)	5 (5.6)	0 (--)	0 (--)
# of courses taken online DURING the pandemic.	0 (--)	0 (--)	23 (25.8)	25 (28.0)	41 (46.1)

Students' Understanding of Active Engagement

Considering the generation of students on our college campuses, exploring and comprehending their understanding of active engagement in an online/remote learning environment is imperative. Survey question three explored preservice teachers' overall understanding of active engagement in an online learning environment. The researcher employed a thematic analysis and generated themes and codes. Researchers used elements of the theoretical framework in this study to create themes and develop codes to group the data. Most respondents (n = 81, 91.0%) indicated that engagement in an online environment involves being physically present in a live synchronous classroom (just like in the face-to-face classroom). Several others

(n = 72, 80.9%) described active engagement as "having the ability to collaborate with peers," which can be both asynchronous and synchronous. Many (n =55, 61.8%) described active engagement as meaningful interaction with peers beyond just collaboration to complete a task. This description points to social engagement. While several others(n = 44, 49.4%) leaned more toward being engaged with content, others described it as having an ideal relationship with the professor (n = 79, 88.8%). Table 3 shows the result of the thematic analysis of this item.

Table 3

Students' Understanding of Active Engagement in an Online Course

Theme	Codes	Reference by Numbers	Selected Quotes
Social engagement	Meaningful interaction with peers and Professor	55	"Having meaningful interactions with my peers and with the professor." "Participate and engage in class, create a relationship with the professor as best as possible, interact with peers (exchange numbers if necessary)."
Cognitive engagement	To be engaged with content	*44*	"The content should be interesting and should not be the same routine thing repeatedly. Also, having a timeline and checklist of everything that will be due is always helpful." "To me, being engaged in online learning is actually feeling like you've learned what the class is trying to teach you."
Behavioral engagement	Being physically present (synchronously)	81	"Engaging in an online course means interacting with the professor and the other students in the class and the course material. I like having occasional Zoom meetings to discuss things with my classmates and get questions answered by the professor. If there are no synchronous meetings, having recorded mini lectures helps me to learn and feel connected." "To be engaged in an online course means to me that there are synchronous Zoom meetings that are taught the way the class is normally taught in person. The professor is teaching the lesson or concept and questions the students, and the professor is also prompting discussion, showing examples, and much more. However, there are also ways to be engaged in an online course asynchronously. The professor can use discussion boards, prerecorded videos, and announcements to interact with us and engage us in the material being taught."
Collaborative engagement	Collaboration with peers	72	"Being engaged means communicating with other students in the class and not just through discussion posts. Discussion posts, in my opinion, don't really allow students to connect with each other because they are required for a grade. Finding a way for students to meet and exchange contact information to help with the class is best. "I believe to be engaged in an online course is to have group discussions and conversations with each other to keep us engaged and learning throughout the online course."
Emotional engagement	Ideal relationship /communication with the professor	79	"Active participation in discussion boards, thoroughly checking D2L and email regarding course content/assignments, and receiving regular feedback from instructors, attending (and participating in) Zoom meetings" "Very difficult if the professor already lacks communication before being online. Online courses should require a lot of detail for projects and leniency on assignment submissions, as technology can be very confusing and tricky. Online course professors should be easy to reach when it comes to questions and needs of guidance."

Similarly, researchers asked a follow-up question regarding students' engagement in their current online learning: How does the course(s) you have taken (or are taking) online meet your description of online engagement? Response to this item significantly varied as responses indicated more cognitive elements (n = 67, 77.0%) and collaborative engagement (n = 50, 82.0%). There was minimal mention of social (n = 25, 42.0%) and behavioral engagement (n = 23, 70.4%). It is captivating to learn that there was no reference to emotional engagement. Table 4 presents the results obtained from this item.

Table 4

Ways Online Courses Meet Students' Description of Engagement

Theme	Codes	Reference by Numbers	Selected Quotes
Social engagement	Meaningful interaction with peers and Professor	25	"Both of my professors this semester did a great job keeping the Zoom sessions engaging. All students were required to participate to the best of their ability, which resulted in a well and effectively planned online class session." "Professor X takes great care in outlining the structure of the week. He sends us an email and message on D2L containing each week's tasks. Additionally, Professor X provides my peers and me with copious feedback on what we did well and how we can improve."
Cognitive engagement	To be engaged with content	67	"I think my professor has done a great job of making sure that everyone has a chance to participate and will give us time to work in groups, by ourselves, and be there for us if we have any questions to help us learn better."
Behavioral engagement	Being physically present (synchronously)	23	"The course meets my description of engaged learning because I participated in discussion boards, and we meet synchronously." "The courses I am taking online have met my description of engaged learning in many ways. They all follow the synchronous or asynchronous part of what I said. They ensure to engage us whether we are on Zoom or not. I have not had any serious issues with my online classes since the pandemic began."
Collaborative engagement	Collaboration with peers	60	"The courses I have taken this semester have included conversation amongst peers. They have included communication methods, such as Zoom meetings, discussion boards (with responses), and learning community conversations. All of this has led to a sense of community in each course." "Most of my courses right now are education classes, and there is much collaboration, whether on discussion boards or Zoom. Even my asynchronous classes have participation and collaboration elements that keep me engaged and learning. In times like these, I am grateful to be working with fellow teachers and professors with some of the same teaching philosophies as mine. I see some of my friends struggling because their professors are not meeting the class's needs, and it breaks my heart to see them struggle when I am experiencing great learning situations even though we are online fully."

Students' Perceptions of Active Engagement Strategies by Professors

For professors to provide students with a practical and engaged online classroom, they must consider all the five engagement elements discussed in the literature. Since this research is mainly student-focused, researchers only explored students' perception of active engagement strategies employed by their professors during the emergency remote teaching prompted by the

COVID-19 pandemic. Researchers used a five-point Likert Scale and obtained descriptive data regarding this item. The majority of responses were agree/strongly agree (n = 76, 85.4%) and "I received prompt feedback (written or oral) from instructors on my performance" as an effective strategy employed by professors. Several responses were agree/strongly agree (n = 67, 75.3%) that "I worked with other students to prepare class assignments." These responses indicated respondents' need for collaborative engagement in an online learning environment.

Conversely, several responses were (n = 59, 66.3.5%) disagree/strongly disagree "Instructors encouraged contact among students to support each other emotionally," and disagree/strongly disagree (n = 56, 62.9%) "I was provided with all the support I needed socially." An interesting trend emerged from this item: several students (n = 37, 41.6.0%) maintained a neutral position, and several others disagreed/strongly disagreed (n = 38, 42.7%) that "Instructors care about us and talk to us on how to cope without non-academic responsibilities (work, family)." Table 5 shows students' responses on their perception of active engagement strategies employed by professors in online/remote courses during the emergency remote teaching prompted by the COVID-19 pandemic.

Table 5

Students' Perception of Active Engagement Strategies by Professors

Statements	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
I was provided with all the support I needed socially.	34 (38.2)	22 (24.7)	15 (16.9)	13 (14.6)	16(17.9)
I worked with other students to prepare class assignments.	3 (3.40)	9 (10.1)	10 (11.2)	39 (43.8)	28 (31.5)
I received prompt feedback (written or oral) from instructors on my performance.	4 (4.50)	4 (4.50)	5 (5.6)	34 (38.2)	42 (47.2)
I was provided the support I needed to help me succeed in an online/remote learning environment.	30 (33.7)	26 (29.2)	15 (16.9)	11 (12.4)	7 (7.9)
Instructors encouraged contact among students to support each other emotionally.	26 (29.2)	33 (37.1)	16 (17.9)	9 (10.1)	5 (5.6)
Instructors care about us and talk to us about how to cope with our non-academic responsibilities.	20 (22.5)	18 (20.2)	37 (41.6)	6 (6.7)	8 (8.1)
Instructors are available at all times to answer my questions and concerns.	17 (19.1)	21 (23.6)	13 (14.6)	21 (23.6)	17 (19.1)

Understanding students' experiences in an online learning environment is critical, considering that most respondents (n = 63, 70.8%) indicated only taking an online class for the first time during the pandemic. To explore these experiences, researchers used a Likert-Scale item to solicit responses related to their experiences while taking an online course. Most respondents (n = 49, 55.1%) disagreed/strongly disagreed with the statement, "I learned more in remote/online courses than in face-to-face." Similarly, more than half disagreed/strongly disagreed (n = 56, 62.9%) that "I feel very much engaged in an online/remote learning environment more than face-to-face." Half of the respondents (n = 45, 50.2%) agreed/strongly agreed that "The online course design and navigation is seamless. I can locate resources and materials on LMS easily." While one-third of respondents (n = 38, 4274%) indicated a lack of interest in taking more remote/online courses, others agreed/strongly agreed (n = 30, 33.70%) expressing interest in taking more remote/online courses. Several others (n = 21, 23.6%)

remained neutral. Table 6 presents responses regarding respondents' experiences in an online course.

Table 6

Respondents' Experiences while Taking Online Course

Statements	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
I am more engaged in an online/remote learning environment than a face-to-face one.	22 (24.7)	34 (38.2)	19 (21.4)	6 (6.7)	8 (8.9)
The online course design and navigation are seamless. I can locate resources and materials on LMS easily.	12 (13.5)	23 (25.8)	9 (10.1)	26 (29.2)	19 (29.4)
I learned more in remote/online courses than in face-to-face.	22 (24.7)	27 (30.3)	14 (15.7)	12 (13.5)	14 (15.7)
I am willing to take more remote/online courses in the future.	26 (29.2)	12 (13.5)	21 (23.6)	12 (13.5)	18 (20.2)

Students' Preferred Ways of Engagement

Researchers used an open-ended question to solicit information about students' preferred ways of engagement in a remote/online learning environment. To analyze responses generated from this item, researchers maintained a similar coding strategy used earlier on all the open-ended questions and used the same table format for reposting students' responses, except that, in this table, researchers used self-judgment to place responses into elements of engagement strategies identified by Redmond, Abawi, Brown, Henderson, & Hefferman, (2018). Table 7 shows students' preferred ways of engagement in a remote/online environment.

Table 7

Students' Preferred Ways of Engagement in a Remote/Online Learning Environment

Codes	Theme	Reference by Numbers	Selected Quotes
Synchronous meeting	Social engagement	85	"Having a more interactive class than just sitting there and listening to the professor go over the PowerPoints the whole time."
			"The same way as my two classes were run this semester. By attending Zoom classes, the professor encourages conversation between the students and the professor."
Synchronous meeting, not lecturing	Cognitive engagement	58	"This depends on the class, but I thoroughly enjoy collaborative short Zoom sessions. I had one class that met for an hour to an hour and a half every week. During this time, I was able to brainstorm with other students. However, I have found collaborative work stressful in other courses that I have taken, especially with undergraduates (I am a graduate student). They often would not participate or discuss concepts in class. This left me attempting to carry the conversation. However, when the students in the class are willing to engage, I prefer short Zoom sessions to talk over the material."
PowerPoint presentation	Cognitive engagement	18	"Fun PowerPoints, class discussion, or class activities"
Asynchronous meeting	Behavioral engagement	20	"I would prefer a more asynchronous class schedule, where all of our material is already for us to view at our own time. I also prefer that the teacher be open to scheduling Zoom meetings if I need clarification or support.
			"I would like to be engaged both in synchronous Zoom calls and asynchronously. Sometimes, being on a long Zoom call loses my attention along with others, and it is hard to stay focused and engaged with what is being said. So, the option to attend them could be helpful. More breaks and less lecturing could be helpful. However, it is also nice to have asynchronous courses as well. Then you get a break from Zoom and having to meet constantly."
Discussion Board	Behavioral engagement	76	"Having discussions with my peers, since I cannot see them in a classroom, it would be nice to have discussions and learn more about them."
			"I would prefer more group discussions as sometimes it is hard to involve ourselves when speaking out to one at a time on Zoom."
Using breakout rooms	Collaborative engagement	80	"While I am not a big fan of breakout rooms, I enjoyed having a discussion in smaller groups and hearing everyone's thoughts or opinions. People feel more comfortable than they do in the larger class."
Group work	Emotional engagement	76	"Less lecture-based classes. More enhancing talk, like back and forth between students and professor. Make talking about our normal lives outside of school normal; to us, this means you care."
Given schedules ahead of time	Cognitive engagement	26	"Given scheduled class time to complete assignments rather than lecture or discussions."

To get a deeper understanding of preferred ways of engagement in an online learning environment, researchers asked a follow-up question to this item for students to express what they wished their professor had done in a remote/online class. We asked students to use the "I wish statement." For analysis purposes, researchers consolidate the responses into themes and present the frequency of mentions of each theme with a sample quote. Table 8 shows responses regarding what respondents wished their professors had done in an online learning environment.

Table 8

I Wish My Professors Had Done

Theme	Reference by source	I wish my professor(s)
Emotional engagement	49	"Talk to the US, not about our other classes or things we do in school, but about us, the students. Engage in our life outside of school and pretend to be interested if you are not. DO NOT talk down to us. We are all equals and should communicate in the professional manner we are expected."
		"All the instructors that I have had have been great. They all seemed to care about their students ' well-being. They talk to their students, have a sense of humor, and are very dedicated to their jobs."
Social engagement	58	"Allow classmates to socialize."
		"I wish they would try to understand that students' lives do not always revolve around school. I found this semester that some professors gave us a ton of workload and projects and required us to meet one-on-one with them at times, which is not unreasonable, but it felt like they did not understand or respect that I work or have a family. It sometimes felt passive-aggressive if life happened and I had to miss a class or reschedule a meeting. Of course, I already would be stressing about having to do so it felt like they would think I did not care about the class when I was trying very hard. However, I had other classes and professors this semester that were AMAZING, specifically X and X. My professors were upbeat, cared about us, but never overstepped or overloaded us."
		"Get to know us. Some did! And it was recognized and appreciated."
Cognitive engagement	51	"I wish the instructor would incorporate more group work during class time or Quizlet instead of longer lectures."
		"I would recommend recording the Zoom sessions and uploading them as some students enjoy looking back on things that were talked about rather than searching through a bunch of Word documents that the professor uploaded to find what they need when they could go back to the day something was talked about and browse for it there and hear what the professor has to say about the topic again."
Behavioral engagement	16	"In my online course, specifically the Zoom classes, I wish those professors would make having the camera on an option and not forced. I understand wanting us to pay attention, but sometimes, having it off is nice. I am not always comfortable with it. Sometimes, engaging would be easier if there was more of a choice. In addition to that, I also wish my professors/instructors wouldn't force someone to answer; instead, they give us time or alternatives to what is being asked. Sometimes, it is difficult, and we aren't already engaged, so maybe give alternative ways to teach or ask what you want from us. A ton of websites and games could be played to engage and help us."
Collaborative engagement	48	"I would like them to do more breakout rooms and smaller group activities. Also, maybe have some engaging games such as Kahoot to get the class excited and more willing to talk to each other."

Discussion of Findings

In this study, researchers examined students' perception of active engagement strategies used by educators during the emergency remote teaching prompted by the COVID-19 pandemic. Researchers further examined students' beliefs about the appropriateness of these strategies. The literature review revealed that before the migration to online/remote teaching and learning driven by COVID-19, there was an increase in the number of colleges and universities offering online courses, and the number of students taking online/remote courses has also increased (Lederman, 2018). Findings from this study revealed some implications for educators, students, and educational administrators. In this section, researchers present a discussion of findings related to research questions that guide this study.

There needs to be more research that explores students' understanding of active engagement in an online/remote learning environment. Educators and practitioner-researchers focus on devising a cutting-edge engagement strategy that makes sense to them based on a one-size-fits-all approach. It is essential to realize that the generation of students on our college campuses is changing (Ibrahim & Shiring, 2022). Educators and educational researchers need to conduct studies that explore students in the digital age (alpha generation) and what engagement means to them since they have a very different relationship with technology tools that are unique and different from the previous generation.

Active engagement is a topic of interest to every educator in a traditional face-to-face classroom and online/remote learning environments (synchronous and asynchronous). The question of what active engagement means is crucial to both educators and students. In general terms, Lee et al. (2019) define active engagement as "the level of effort or interaction between the time or the learning resources that develop learning outcome and experience" (p. 2). Another

encompassing definition of engagement is "the student's psychological investment in an effort directed toward learning, understanding, or mastering the knowledge, skills, or craft that academic work is intended to promote" (Newmann et al., 1992 in Martin & Bolliger, 2018, pp. 205-206). This definition by Newmann et al. signifies the complexity of defining engagement. Several respondents in this study have attested to this, whereby they all have a unique definition of engagement. For example, one respondent mentioned, “To me, engagement in online learning is actually feeling like you have learned what the class is trying to teach you.” Another respondent said, “To be engaged in an online course means being able to talk to my peers, communicate efficiently with my professors, having applicable assignments, flexibility, especially from my professors, and content being organized and not confusing." From both examples, one can deduce that students perceived engagement in online learning to include engagement with content and overall interaction that provides for social, cognitive, behavioral, collaborative, and emotional engagements.

Consequently, Chen et al. (2010) and Redmond et al. (2018) explain that the definition of engagement "emphasized individuals' engagement with learning rather than their interactions with staff or other students, even though such interaction has been identified as another key influencer of engagement" (p. 184). Findings from this study support this claim, and respondents indicated feeling more engaged when focused on learning rather than interacting with other students. One respondent says, "To be engaged means actively learning and participating." Another respondent mentions, “Engaged learning is being involved in the learning process.”

In this study, several students' understanding of active engagement in an online learning environment conflicts with the existing literature. Conrad and Donaldson (2012) elucidate that "the process of online engagement includes interactions between teachers and students and also

among the students within a course's learning community" (p.6). Several researchers report that students' engagement in an online learning environment involves interactions between students and students and students and educators (Czerkawski & Lyman, 2016; Kahn et al., 2017; Martin & Bolliger, 2018). Overall, mixed findings from this item support the claim and the literature that classroom engagement is complex and challenging to put into a single universally accepted definition in face-to-face and online/remote learning environments (Czerkawski & Lyman, 2016).

The total shutdown and closure of schools prompted by the COVID-19 global pandemic compelled schools at all levels of education to move into online/remote delivery. This is different from the traditional planned online/remote learning that colleges and universities have been offering for some time. This migration to online/remote learning, according to Hodges et al. (2020), is "in contrast to experiences that are planned from the beginning and designed to be online, emergency remote teaching (ERT) is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances" (p. 7). Online and face-to-face environments are distinct in all aspects – from engagement and interaction to learning by itself. Whenever educators attempt to imitate what they do in a face-to-face setting in an online/remote learning environment, this effort fails, and the learning becomes difficult (Brown, 2021). In this environment, Brown (2021) suggests that, while teaching online, educators should not implement practices and strategies in face-to-face or online/remote environments. Attempting to do that will not yield the desired outcome. To serve the unique needs of every student, educators must be intentional in their strategy for online/remote environments and know their students better so that they can tailor their plans to their needs.

During the emergence of remote teaching (ERT), professors have devised creative ways to engage students. Most respondents indicate that “I received prompt feedback (written or oral) from instructors on my performance” as an effective strategy. This response corroborates findings regarding students' understanding of active engagement – engaged learning is actively learning, participating, and being involved in the learning process. The professor's feedback helps students know if they are learning or not. There is literature to support findings regarding instructor engagement and feedback in an online learning environment to support students' learning. Martin and Bolliger's (2018) findings suggest that "rapport and collaboration between students and instructors in an interactive and cohesive environment, including group work and instructive feedback, are important for student engagement resulting in learning success"(p. 208). Similarly in their study, Lee et al. (2019) report that "teaching presence is facilitated when the learners communicate with instructors regularly" (p. 9). The communication can be asking questions and receiving feedback regarding work completed or an area they need clarification on (Lee et al., 2019). In this study, respondents indicate that their interaction with professors (in an online/remote learning environment) increased their engagement and motivation to learn and complete their work.

The literature points to increased student enrollment in online programs and courses. In this study, the demographic characteristics of respondents show that 26 (n =26, 29.2%) respondents indicated having taken a remote/online course before migrating to remote/online instruction as a result of the COVID-19 pandemic, and 63 (70.8%) respondents stated that they had not taken any remote/online/hybrid course before the pandemic. However, with the impact of a complete migration to online/remote learning during the pandemic, all the respondents have taken an online/remote course. There is a question of what may count as active engagement and

how it may be expressed in practice (Redmond, 2018). Online course design plays an essential role in students' preferred ways of engagement. Several researchers suggest that faculty and instructional designers can help students' learning by being determined in their course design and considering the generation of students in the classroom, their preferred ways of engagement, and their learning needs (Czerkawski & Lyman, 2016; Dixson, 2010). Kahn et al. (2017) opine that "theorizing student engagement allows one to consider how individual students determine their actions, while also taking account of structural setting within such action is conducted" (p. 206). Theorizing students' engagement compels educators to be purposeful in their design by expanding their knowledge about the generation of students they teach.

Respondents in this study have expressed various ways they preferred to be engaged in an online/remote learning environment. All their responses point to the need for educators to know their online students better and to be purposeful in their teaching plans to maximize students' engagement and learning. Several respondents indicated the need for faculty to be vast in using new technology for different purposes instead of doing everything on a Learning Management System (LMS) – D2L or Moodle. Their manifestation supports findings as suggested by Robinson and Hullinger (2008). Robinson and Hullinger found that students preferred educators to use new technologies and practices that will foster a high level of engagement in their online course design, particularly the social networking tools for increasing students learning and engagement.

Implications for Educators and Students

Educators strive for active student engagement in the classroom using cutting-edge strategies. While it seems easy in a traditional face-to-face classroom, active student engagement in an online/remote learning environment has proven difficult for many educators. The overall

findings from this study revealed that educators have used several engagement strategies during the COVID-19 emergency remote teaching, some of which students did not find convenient for them. Respondents expressed how educators should have engaged them during the emergency remote teaching.

Educators

In this study, students' engagement is the key. Respondents expressed their preferred ways of engagement, which are all congruent with the online engagement framework proposed by Redmond et al. (2019). Findings provide educators with an understanding of students' learning preferences in an online environment and address them coherently. Students have expressed their learning preferences in an online learning environment. While some students have had the experience of learning in a remote/online learning environment before the COVID-19 pandemic outbreak, many others indicated that this was their very first time taking a remote/online course. Based on that, they have several needs they wish their professors had known and addressed in online/remote learning. Findings from this study would serve as a source of literature for educators. They should use it while planning for any remote/online classroom to maximize students' learning.

The framework for this research provides some engagement elements that need to be integrated into a remote/online learning environment. Findings revealed that students expressed a lack of social, behavioral, and emotional engagement across the board. Educators should look into integrating these engagement elements, especially emotional engagement. The pandemic has taken its toll on every one of us, students included. They suffer emotional disturbance. Educators should look into various needs expressed by students regarding their emotional needs and

integrate them into any remote/online course. This practice would be integral for students' success and participation in the class.

Students

Respondents' experiences in online/remote learning vary. Several respondents revealed they had not taken an online course before migrating to remote learning due to the COVID-19 pandemic. The lack of experience in online education before the pandemic made it challenging for these respondents to acclimate, especially in the emergency remote teaching prompted by COVID-19. Therefore, findings from this study benefit students in the following ways:

1. Self-actualization: Students recognize different challenges faced by other students during this time and can serve as a support system to one another.
2. Social engagement: Students can also benefit from these findings by recognizing that social isolation exists and this may prompt them to reach out to one another and create social groups like assignment groups, study groups, or even doing something for fun out of their leisure time.
3. Though this might be difficult to do, students can take the initiative to provide suggestions to professors on some missing elements of engagement by offering some feedback to the professors.

Conclusion

The experience of the shutdown driven by the COVID-19 pandemic has made the educational community across all grade levels and higher education experience working, teaching, and learning in an online/remote environment. The technology industry has experienced significant growth due to increased demand for technology tools and services to keep society moving. As the threat and danger of COVID-19 lessened due to access to and

abundance of vaccination, several industries, including education, have returned to pre-pandemic mode of operation. However, “online/remote teaching is here to stay” (Ibrahim & Ahmed, 2022, p.157). The rise in online courses has remained; consequently, to help students learn effectively, educators must remain current regarding technology integration and the application of online engagement strategies in their online/remote courses. Findings from this study revealed a glaring need for educators to know and understand students' unique needs in an online learning environment and their preferred ways of engagement, especially in behavioral and cognitive engagements. Therefore, educators need to continue researching ways to provide a better experience to their students in an online learning environment and continue professional development in this area because students' needs are varied and dynamic. The recommendations from this study will guide students, educators, and administrators on their responsibilities and how they can each support the creation of a vibrant and engaging online learning environment for students' overall success.

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Latent Profile Analysis of Approaches to Learning: Associations with Executive Function in a Head Start Sample

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Abstract

Children's Approaches to Learning (AtL) represents how children seek learning opportunities in their classrooms. It can include children's persistence, attention, and initiative. It has often been studied using a composite of a teacher-rated scale. However, person-centered approaches may account for heterogeneity in children's learning approaches, and it may be able to tease apart differences between AtL and other similar constructs, like Executive Function and social development. This study used Latent Profile Analysis in a study of Head Start children (n=355) ranging in age from 28 to 59 months. Five different profiles of children emerged, including those with low, medium, and high AtL and two unique profiles. Differences in social development and executive function emerged across the profiles. Implications for teachers are discussed, including ways to promote children's AtL.

Keywords: Latent Profile Analysis, Executive Function, Head Start

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During their PreK year, many children develop cognitive, social, and emotional skills that place them on a path toward positive teacher and peer relationships, school enjoyment, and academic achievement (Pratt et al., 2019). Along the way, children encounter new classroom expectations, such as sitting still, listening to the teacher, getting along with others, and entering a group already at play (Abenavoli et al., 2017). These expectations may be initially difficult for children unfamiliar with a school environment (Denham et al., 2012). Children exhibit a range of behaviors in response to the demands of a new environment (McWayne & Cheung, 2009). Researchers are interested in the distinctive ways children successfully adjust, despite environmental influences, stress, or adversity (Cantor et al., 2019). As children's responses to adversities represent many diverse resilience pathways, more research is needed to understand children's individual responses to the environment.

Approaches to Learning (AtL) is a construct that represents a child's normative, adaptive response to their environment (DiPerna et al., 2002). It is a constellation of learning-related skills and behaviors that connect children to learning opportunities in the classroom (Li-Grinnig et al., 2010). McDermott et al. (2018) point out that AtL is conceptually rooted in social, cognitive, and emotional development yet remains distinct in that it represents the mechanisms by which children learn. Current research on AtL includes multiple characteristics that vary from study to study (Fantuzzo et al., 2004; McDermott et al., 2014). Previous research has used terms and measures of AtL to interchangeably represent social development, executive function, and engagement (e.g., George & Greenfield, 2005; Hooper et al., 2010). Thus, more research is needed to demonstrate children's individual strategies and how these strategies are connected yet distinct from executive function and social development constructs. Advanced statistical techniques, like latent profile analysis, may tease apart aspects of these interrelated dimensions

of functioning. There have not been any studies examining children's AtL using person-centered approaches to date. This study aims to use latent profile analysis (LPA) to examine the patterns of AtL within a sample of preschool children and investigate how these profiles are associated with children's executive function.

Review of Literature

Approaches to Learning

AtL is a multidimensional construct that develops rapidly between pre-k and kindergarten and stabilizes by the end of elementary school (Bulotsky-Shearer & Fantuzzo, 2011; McDermott et al., 2014). AtL is generally described as a broad set of skills that reflect children's engagement in classroom interactions and activities (Hyson, 2008; Stipek et al., 2010). AtL facilitates learning by enabling children to follow directions, persevere with challenging tasks, adapt problem-solving strategies, work independently, and cooperate with classmates (Blair, 2002; Razza et al., 2015). Kagan et al. (1995) described AtL as a set of learning dispositions that "include variances that affect how children attitudinally address the learning process" (p. 23). The most common elements of AtL include attention, cooperation, trying new things, persistence, and following classroom rules.

Other School Readiness Constructs

Children's school readiness encompasses many aspects, including social-emotional development, cognitive development, and behavior regulation. AtL represents children's adaptions to learning in the classroom environment. However, it is often studied alongside other elements of children's social, emotional, and cognitive functioning, like executive function (EF), social skills, and problem behaviors. Each component of school readiness helps support children in unique ways. Although the constructs can sometimes be used interchangeably, they are often

measured in distinct ways or are present in distinct contexts. For example, many measures used to assess cognitive components, like EF, are directly assessed, while AtL relies on teacher-report. AtL considers compliance with teacher requests and cooperation in group activities, while social competence considers interactions that foster friendships with peers (Razza et al., 2015). Finally, problem behaviors are sometimes presented in the literature as a maladaptation to the learning environment (i.e., the opposite pole of AtL or adaptive behaviors). Nevertheless, problem behaviors can occur outside the learning context (i.e., the cafeteria and hallways), while AtL is typically referred to as classroom-based behaviors.

EF is primarily a cognitive skill that includes the subdomains of working memory, cognitive flexibility or attention shifting, and inhibitory control (Blair, 2002). Conceptually, it represents neurological brain structures housed in the prefrontal cortex, often measured through direct assessment. It typically refers to cognitively oriented tasks assessed in emotionally neutral contexts (Jones et al., 2016). EF may be beneficial for holding task-specific instructions in memory and remembering a sequence of steps (Ng, 2021).

Several studies have supported a link between EF and AtL (Nesbitt et al.2015; Sasser et al. 2015). However, the literature also contends that behavioral self-regulation (BSR) is the behavioral manifestation of EF (Cadima et al., 2015; Litowski et al., 2020). EF is considered part of a suite of skills under the umbrella of self-regulation, with overt behaviors being identified as BSR (Ng et al., 2021). Thus, performance-based tasks measure EF, while AtL may include a broader range of strategies specifically related to learning.

Another component of children's school readiness is social development, which includes prosocial behaviors such as sharing, helping others, and expressing empathy (Graziano & Hart, 2016). Social development and AtL both rely on positive, cooperative relationships with others

(Razza et al., 2015). Social competence and AtL are often represented as separate but interrelated constructs in the research. Social skills help children become more engaged in learning as they interact with peers and teachers (Goble et al., 2017). A study by Arnold et al. (2012) explored the mediational relationship between social skills and AtL. Prosocial behavior demonstrated a small negative relationship with math growth when AtL was included in the model. Arnold et al. posit that AtL and social skills may share a significant amount of common variance masked in previous studies that do not simultaneously include ATL and measures of social competence.

AtL highlights how a child navigates a learning environment (Ponitz et al., 2009). However, some children's strategies include behaviors that escalate conflict and disrupt learning in the classroom (Denham et al., 2012; McClelland et al., 2006). Referred to in the literature as negative approaches to learning, these maladaptive behaviors limit children's interactions with teachers or peers and do not promote learning (Chen & McNamee, 2011; Hyson, 2008; Montroy et al., 2014). According to the literature, negative AtL or problem behaviors include a range of behaviors, from physical aggression and inattention to behavior that is misaligned with the expectations of the setting, e.g., the child blurts out when the expectation is to raise hands (Bulotsky-Shearer & Fantuzzo, 2011). Problem behaviors appear to interfere with classroom learning processes and the child's ability to engage in learning (Montroy et al., 2014). Children with negative AtL may be distracted, give up easily, or be likelier to engage in interactions that disturb the learning environment. Children's behavior problems or aggressive behavior have been associated with lower AtL (Domínguez et al., 2010; Fantuzzo et al., 2005), especially when children are in structured learning environments, like whole group learning (Bulotsky-Shearer & Fantuzzo, 2011). However, other research suggests that in some cases, problem behaviors may stem from problems in executive abilities (Brock et al., 2009; Diamantopoulou et al., 2007).

Baptista et al. (2016) found that children with better EF have fewer problem behaviors because they can participate more in the classroom with less assistance. This paper argues that EF, social development, and problem behaviors are all distinct constructs from AtL.

Person-Centered Approaches

Latent profile analysis (LPA) is a mixture modeling technique used when researchers seek to identify distinct patterns among multiple variables (Asparouhov & Muthen, 2014). As a person-centered approach, LPA has numerous advantages over more traditional variable-centered approaches, as it can identify the dynamics of emerging subgroups and capture heterogeneity in behavior (Racz et al., 2016). LPA allows for the classification of an underlying latent categorical variable that represents distinct profiles of the construct under study (Abenavoli et al., 2017). Moreover, LPA may be beneficial in modeling patterns of functioning across multiple domains.

Multiple studies have used LPA to study umbrella constructs like school readiness, self-control, and emotion regulation (Denham et al., 2012; Hair et al., 2006; Vaughn et al., 2009). These studies have shown that children's positive social/emotional behavior tends to co-occur with other school readiness variables (Collie et al., 2019; Martineli et al., 2017). Additionally, there are often mixed patterns of development. For example, Williams and Bently (2021) examined pre-k children's EF and BSR, finding a profile of children with strong EF but poor self-regulation. Similarly, Elliot (2019) distinguished two profiles, one with low academic achievement and behavior problems, while the second had low achievement coupled with low EF. Quirk et al. (2013) found different combinations of social-emotional skills and cognitive skills. These studies highlight the importance of examining multiple components of school

readiness using a procedure that can capture multiple distinct development patterns (Vitello & Greenfield, 2017).

The Current Study

Previous research has been limited in the definitional clarity surrounding AtL (Author). While AtL is conceptually distinct from EF, social development, and problem behaviors, the empirical research to date has not clearly differentiated these constructs (Barbu et al., 2015; Ponitz et al., 2009). More research is needed that simultaneously examines AtL, EF, and social development.

This study used ratings of AtL from different informants. Examining AtL from a teacher's perspective provides a more global account of children's functioning. We also utilized a classroom-based measure of AtL; this allowed us to examine the children's interactions with materials in different contexts. Finally, we explored a measure of AtL taken during a one-on-one setting with a researcher, which may capture children's AtL strategies in a more controlled environment. Seeing different profiles emerge may shed light on how different children utilize different strategies in varied environments. We expected to find that children would demonstrate a range of AtL patterns, including mixed patterns.

1) What are the distinct profiles of AtL?
2) What are the demographic characteristics of children associated with these profiles?
3) How are these profiles related to children's executive function and social development?

Methods

Data Source

This study utilized data from a larger study exploring child, family, and classroom characteristics of a Head Start program, the Preschool Child Assessment Survey (PCAS). This study used a multi-stage sampling approach. First, classrooms were listed from the 10 centers within one Head Start program. Then, classrooms were randomly selected from the list, each having an equal probability of selection. Finally, six children were selected from each classroom, stratified by gender and home language, to match program enrollment.

Children in this sample were assessed at two time points, the fall, and spring of their Head Start year. Classroom observations were conducted in the winter. Multiple methods were used to collect information about children and families, including direct child assessments, classroom observations, and teacher reports. Additional demographic information for the children was accessed through program administrative records.

Participants

Participants included children (n = 355) enrolled in 61 classrooms from one Head Start program in a medium-sized United States city. Given that the children qualify for Head Start, most of the sample were low-income. Recruitment of the identified children occurred when research assistants approached the child's parent or guardian during drop-off and pick-up to discuss the study and secure informed consent. Each child's assent to participate was monitored during the assessments by the trained assessors; children who became upset or refused to answer questions were returned to their classrooms. Two additional attempts, on different days, were made to assess children who had previously refused to participate.

Participants ranged in age from 28 to 59 months (*M* = 44.54, *SD = 8.63)*. Most participants were Hispanic (31%) or Black/African American (21%), white (19%), or mixed/other (29%). There were more boys than girls in the sample (female=38%). Most participants' home language was English (59%), while 35% of participants' home language was Spanish.

Measures

Several measures representing different reporters were used. All measures discussed below are organized by the construct they purport to assess—AtL, EF, and social development.

Approaches to Learning

Individual Classroom Assessment Scoring System. The Individual Classroom Assessment Scoring System (inCLASS) is a child-focused observational assessment of children's positive and active engagement with teachers, peers, and tasks in preschool (Downer et al., 2010). During an observation cycle, the target child was observed for 10 minutes and then rated along 10 dimensions on a seven-point scale from 1 (low) to 7 (high) (Yoder et al., 2019). Ratings incorporate both the quality and the frequency of specified behaviors. Each child was observed multiple times (sweeps) throughout the day, and these sweeps were averaged to create a dimension score.

The inCLASS includes 10 dimensions across three domains (teacher interactions, peer interactions, and task orientation). In this study, AtL was measured via two dimensions (engagement and self-reliance) of task orientation, a domain describing children's use of on-task, self-directed behavior to manage the academic demands of the classroom (Downer et al., 2012). Engagement with tasks measures the degree to which a child is consistently and actively involved in classroom tasks, including sustained attention, focus, and interest. Self-reliance

measures the degree to which a child takes learning into their own hands by actively seeking learning opportunities and using classroom resources. Bohlman and Downer (2016) have used the task orientation subscale of the inCLASS to measure AtL.

Several studies have researched the psychometric properties of the inCLASS. For example, Downer et al. (2010) found support for concurrent validity when the positive engagement with teachers inCLASS dimension was positively related to ratings of teacher-child closeness and child assertiveness. The inCLASS has also shown construct and criterion validity specific to both positive and negative peer engagement, with studies identifying mild or moderate associations between the inCLASS peer dimensions and teacher-rated social skills on measures such as the Teacher-Child Rating Scale (Downer et al., 2010). It maintained measurement properties across demographic groups, including poverty status, ethnicity, and gender (Bohlmann et al., 2019). It has also been associated with school readiness and self-regulation measures, indicating that the inCLASS can capture behaviors relevant to the learning process (Sabol et al., 2018).

Devereux Early Childhood Assessment, Preschool 2nd edition. The Devereux Early Childhood Assessment (DECA-2P) is a standardized, norm-referenced rating scale used to assess the behavior and functioning of children aged 2 to 5 (LeBuffe & Shapiro, 2004). The DECA is designed to identify children's strengths in social, emotional, and behavioral functioning and includes two subscales, total protective factors (27 items) and behavioral concerns (10 items) (Crane et al., 2011). Caregivers rate children on a 5-point scale according to how often (never, rarely, occasionally, frequently, very frequently) behavior has been observed within the last four months, such that higher scores indicate more protective factors. Raw scores are typically converted to T-scores for analysis with a mean of 50 and a standard deviation of 10.

The DECA has demonstrated acceptable psychometric properties. Lien and Carlson (2009) provided evidence that the internal consistency and standard error of measurement values on the DECA for a Head Start sample closely mirrored those of the standardization sample, indicating the measure was reliable with Head Start populations. Similarly, Crane et al. (2011) demonstrated the measure had internal consistency within a low-income and ethnically diverse sample. There were no differences in internal consistency between the Spanish and English versions of the DECA.

Factor analysis across multiple studies (Crane et al., 2011; LeBuffe & Shapiro, 2004) has shown that protective factor items load onto three factors. These include: *initiative*, the child's ability to use independent thought and action to meet their needs; *self-regulation*, the child's ability to experience a range of feelings and express them; and *attachment*, a measure of the mutual, strong, and long-lasting relationship between the child and a significant adult. For this study, only selected items were utilized because the DECA is intended to measure protective factors and not AtL expressly. Items that correspond to previous researchers' operationalizations of AtL that focus on observable classroom behaviors were selected. Two items from the attachment subscale were included: asks an adult to read to them and looks forward to activities. For self-regulation, four items were kept: plays with others, handles frustration, is patient, and accepts another choice if the first choice is not available. The item-level responses within the subscale were summed and then divided by the total number of responses to create a subscale score (e.g., two for the attachment subscale). The two subscales were maintained as distinct components; however, the labels were changed to reflect classroom-based behavior. The attachment subscale was renamed adaptive behavior, and the self-regulation subscale was renamed emotion management.

Leiter-R Examiner Rating Scale. The Leiter-R Examiner Rating Scale (Leiter-R), a behavior rating scale completed by an assessor after a testing session, is designed to provide a snapshot of the child's test-taking behavior or socio-emotional factors (Roid & Miller, 1997). The assessor rates children's behavior from 0 (rarely) to 3 (always), with higher scores indicating better behavior. Children are rated according to eight subscales: attention, organization, activity level, sociability, energy/feelings, regulation and mood regulation, anxiety, and sensitivity reactivity. The attention scale was used for this study, which converts the composite of the subscale scores to a scaled score with a possible range from 1-19. The 8 items in the attention subscale include whether the child pays attention, stays on tasks, and sustains concentration. Attention was selected in particular because of its importance to the construct of AtL. The testing manual describes the psychometric properties of the standardization sample, including reliability coefficients for the subscales, which ranged from .71 to .96 across age groups, with only five coefficients falling below .80 (Farmer, 2013).

Task-based Executive Function

Pencil Tap. As a measure of inhibitory control, the Pencil Tap is a simple yet objective assessment of the child's ability to suppress the urge to copy the assessor (Blair & Razza, 2007). The child and the assessor have a pencil; if the assessor taps twice, the child is instructed to tap once and vice versa. Children are given three practice trials and, upon succeeding, are administered 16 additional trials. Each correct trial was scored a one; thus, scores range from 0 to 16. This measure is widely used for EF, particularly for younger children (Fuhs et al., Smith-Donald et al., 2007; Weiland et al., 2014). Test-retest reliability for the pencil tap has been demonstrated with 4-year-olds at r = .80 (Lipsey et al., 2017).

Digit Span. The Digit Span task assesses children's working memory (Gathercole & Pickering, 2000). Children are told a string of numbers and asked to repeat the numbers to the assessor in the correct order. Across trials, the number strings get increasingly longer. Children are given two practice items similar to the Pencil Tap, and then trials begin with the first 2-digit number sequence. The trials stop when the child incorrectly repeats two different sequences of the same length. Children receive one point for each correct answer, resulting in a range of possible scores from 0-11. The Digit Span has been utilized in several studies with young children and represents a valid measure of working memory (Bull et al., 2004; Mahy & Moses, 2011).

Head Toes Knees Shoulders Task. Head Toes Knees Shoulders task (HTKS) measures children's overall behavioral control, including their cognitive flexibility and working memory (McClelland et al., 2014). The task is appropriate for children from four to eight years old and relies on verbal instructions from the assessor. During the initial phase of the task, children are directed to respond naturally to the directions, i.e., touch your toes would indicate touch your toes. During the next phase, children are instructed to do the opposite—if they are instructed to touch their heads, then they touch their toes. During the final phase, the pairings are switched again. This time, the head goes with the knees. Children only move to the next phase after correctly responding in the previous phase until they have reached 30 trials. Children receive a score of two per trial if they answer correctly and a one if they answer incorrectly at first but then self-correct; thus, the range of possible scores is from 0-60. The HTKS has been used to measure executive function in several studies of young children (McClelland & Cameron, 2012; Wanless et al., 2011). Additionally, the task demonstrates strong interrater reliability and construct and predictive validity (Ponitz et al., 2009).

Social Development

Two subscales from two previously described measures were used to capture children's social development. The behavior concerns subscale of the DECA was used to measure children's problem behaviors. It includes 10 teacher-rated questions on the frequency of behavior such as hurting others with actions or words, has a temper tantrum, seems uninterested in adults/children, and has difficulty concentrating. The T-score was used for analysis, which converts the raw scores to a t-score with a mean of 50 and a standard deviation of 10.

The peer sociability dimension of the peer interactions domain of the inCLASS was used to measure children's social development. Peer interaction measures children's social interactions with peers. The peer sociability dimension was used for this study, which measures children's positive emotions and behaviors with other children who receive positive reactions. This dimension captures children's cooperation, shared positive affect, and proximity seeking. A child rated high in peer sociability spends a lot of time with peers, matches the affect of other children, shares materials, and is warmly received and sought out for play by peers. Both behavior problems and peer sociability were selected for this study to validate the profiles because these components of children's behavior seemed distinct from AtL.

Procedures

Trained assessors administered all assessments. Before data collection, assessors were provided extensive training on each child assessment measure. During training, assessors reviewed manuals and conducted practice assessments. Assessors met reliability criteria established by the research team or as recommended by the authors of various measures and were then certified by the PCAS training coordinator before administering assessments to study

children. Similarly, for the classroom observations, assessors attended two days of training on the inCLASS, where they watched videos, practiced coding using the inCLASS manual, and discussed results. Assessors then independently coded video clips and scored within one point of a master coder on 80% of items to be deemed reliable and ready for data collection.

Child assessments were conducted during the fall and spring. Children were assessed one-on-one with a trained assessor in an isolated area of the Head Start classroom or hallway. Children were given a language screening, the preIPT, and it if it was determined that Spanish was their dominant language, they were assessed in Spanish. EF measures were conducted in one morning, lasting approximately 30 minutes. Immediately following the second day of assessment, the assessor completed the Leiter-R assessment. While assessors were on-site conducting the child assessments, they collected the teacher-reported measures.

For the classroom-based observations, a research team member was assigned to a participating classroom to conduct observations, which lasted approximately four hours. Each child in the study was observed for approximately 10 minutes, followed by five minutes of scoring. Observations continued until naptime to obtain as many cycles per study child as possible (mean cycles = 3.67).

Data Analysis

Preliminary analyses

Using SPSS 25, descriptive analyses were conducted to provide means and standard errors for study variables and examine the distributions for normality. Although the items in the DECA were rated on a Likert-type scale (ranging from 0-4), many of the item-level responses violated normality, with high skewness and kurtosis values. Items in these measures were

converted to categorical variables. The five-point scales were recoded to 3-point scales to indicate low (0-1), medium (2), and high frequency (3-4).

Primary Analyses. For the first two research questions, a series of LPA models were estimated in *Mplus* based on the items included in the AtL measures. Full information maximum likelihood was used to handle missing data (Muthén & Muthén, 1998). By utilizing maximum likelihood testing, LPA incorporates individuals with data from at least one indicator variable (i.e., initiative, attention). All continuous variables were standardized with z scores before conducting analyses to facilitate model interpretation. The series of LPA models were estimated, beginning with a 1-class solution and adding an additional class in each successive model (Masyn, 2013). Variable means were free to vary across profiles, and variants were set to be equal across profiles for estimation purposes.

Multiple fit statistics were used to determine the number of profiles within the model. The Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), and the SABIC (Sample Adjusted BIC) were used as measures of relative fit (West et al., 2012). Entropy was also used, with values of .80 or higher, providing evidence that profile classification of individuals occurs with minimal uncertainty (Celeux & Soromenho, 1996). Another fit measure is the smallest group size, with groups numbering under 5% of the total pool of subjects considered a byproduct of the estimation produced (Roesch et al., 2010). Two other fit measures were the Lo, Mendell, and Rubin (LMR) test and the bootstrap likelihood ratio test, BLRT (Ferguson et al., 2019). Both measures provide information about model parsimony, with a significant result indicating that the additional profile improves model fit. The standard procedure is to accept the model with the largest number of classes, smallest relative fit values,

and a significant LMR/BLRT in conjunction with the intelligibility of the profiles (Nylund et al., 2007).

After a model has been selected, the second step in the LPA is to assign participants to classes based on posterior class membership probabilities (Asparouhov & Muthén, 2014). Multinomial logistic regression was used, where one latent profile served as a reference group to identify the extent to which profile membership was associated with demographic characteristics, which included age, race/ethnicity, gender, and home language. Unstandardized beta coefficients and odds ratios (ORs) are reported.

In addition, to better understand how profiles of AtL may be distinct from other similar constructs and to determine the theoretical validity of the classes, additional variables were examined to validate profile membership (Turpyn et al., 2015). In this case, EF, peer sociability, and behavior concerns were used to understand the characteristics of the profiles better. One-way ANOVAs were conducted with class membership as the independent variable, with Post hoc analysis using Tukey's HSD (Kim, 2013).

Results

Descriptive Statistics

Table 1 provides the means and correlations for the study variables. Standard and raw scores are presented. Scores were converted to z scores for analysis. The variables were strongly correlated. The DECA scale items demonstrated high levels of inter-correlation, around 0.60 *p=.001*. The other items were also significantly correlated, although not as high. Table 1 also presents the correlations among the validation measures. The EF measures were moderately correlated (ranging from r = .2 to r = .47, p =.01). The academic measures were also highly correlated (ranging from r = .43 to r = .60, p =*.01*).

Profiles of Approaches to Learning

Successive LPA models were estimated through a 5-class solution. Model fit for classes 1-5 is presented in Table 2. The 3, 4, and 5 class solutions presented the best model fit. The two-class solution (high and low group) had the highest entropy values and significant LMP and BLRT values. The 3-class solution (low, medium, and high AtL) was an improvement, with a reduction in AIC and BIC values but a decrease in entropy. The four-class solution, with a reduction in AIC and BIC, separated two middle classes of children, those who were average and one group with average teacher ratings but low attention scores. The four-profile solution provides few theoretical contributions. The last solution tested, the five-class solution, had a reduction in AIC and BIC with a slight increase in entropy. Ultimately, this model was selected because it represented the best combination of theoretical and statistical fit despite a nonsignificant LMP value. This model could discern an additional class through greater differentiation of the middle profiles.

Table 3 presents the latent profile membership proportions and means for each AtL measure, while Figure 1 graphically depicts the patterns. Multinomial logistic regression was conducted to determine whether class membership could predict demographic characteristics, gender, age categories, home language, and ethnicity. These results are presented in Table 4.

Profile 1, *low approaches to learning*, was the smallest profile (5%) and included children described as low AtL, particularly in their classroom observations of their independence and involvement with tasks. This profile also had the lowest-rated attention. This profile was more likely to include boys ($\beta = 1.28$, $SE = .62$, $p < .01$). Children whose home language was Spanish were slightly more likely to be in profile 5 than profile 1 ($\beta = -1.73$, $SE = .98$, $p = .06$).

Profile 2 represented 8% of the sample and is characterized as *social/dependent*. This group had high ratings of adaptive behavior and medium ratings of emotion management and initiative. However, this group had below average attention (*M* = -1. 46) and independence scores (*M* = - .47). Compared to profile 5, profile 2 had significantly more male students (β =1.06, *SE* = .45, p<.05) and students whose home language was Spanish (β = 1.42, *SE* = .76, *p* <.05).

Representing 46% of the sample, Profile 3 included children who were generally average across all measures; thus, they are characterized as *middle of the road*. They were slightly higher in attention scores (*M* = .44), particularly compared to profiles one and two. This group included predominately English speakers (68%) and boys (56%). This group was generally split across racial groups, with each group including approximately 20% of the sample. Finally, this group was more likely to have 3-year-olds compared to profile 5 (β = .83, *SE* = .33, p < .05).

Profile 4, *low teacher ratings,* included 7% of the sample. This group was closest in mean values to profile 1, low approaches to learning. Yet, the children in profile four had slightly higher than average attention (*M* = .18). This group also had slightly higher scores in independence and attention than profile 1. However, these scores were still below average. Similar to profile 1, this group comprised 75% of boys. Compared to the highest profile, children in profile 4 were more likely to be male (β=1.39, SE = .52, *p* < .01) and younger children (toddler, β=1.10, SE = .61, p =.06; 3 year olds, β=1.27, SE = .64, p<.05).

Finally, profile 5 (33% of the sample), *positive approaches to learning*, included children who were high across AtL measures. Indeed, the children in this group were above average across all measures. This group, made up of slightly more girls (57%) and Hispanic children (42%), was exceptionally high in teacher-rated adaption, emotion management, and initiative. A

higher percentage of this group (41%) included Spanish-speaking children, most likely in profile 5 or 3.

Class Validation

After identifying profiles, additional variables were used to validate the differentiation between classes and better understand each profile. Validation measures included school readiness, executive function, social skills, and behavioral concerns, as rated by the teachers. To validate profiles, one-way ANOVAs were conducted with class membership as the independent variable. Post hoc analysis was conducted using Tukey's HSD (Kim, 2015). While low power due to small group size may have prevented more significant differences between the profiles, some exciting trends did emerge. These results are presented in Table 5 and Figure 2 (note that the validation measures were transposed to Z scores to interpret the bar graphs easily).

Profile 1 had the lowest executive function measures compared to the other profiles. For example, profile 1 had significantly lower digit span values than profile 2 [F (3, 354) = 2.56, p =.01] and profile 5 [F (3, 354) =4.72, p =.01]. However, profile 5 had significantly higher digit spn scores than the other groups. One of the most significant differences in EF was profile 4, negative AtL, and profile 5. Interestingly, although the negative AtL had above-average scores on attention, they had some of the lowest scores across the three executive function measures. Profiles 2 and 3 did not have statistically significant differences in executive function, although they differed in their attention scores. This indicates that attention captures some aspect of behavior that is different from just executive function.

Regarding social skills, the validation measures indicate differences between profiles 1 and 4. Whereas profile 1 was characterized by low approaches to learning, they do not have the lowest social skills or peer sociability. Profile 4, the negative AtL, had the highest ratings of

behavioral concerns and the lowest ratings of peer sociability. Although this group can pay attention, perhaps in one-on-one situations, they struggle in the classroom with their interactions with the teacher and peers.

Discussion

AtL is considered a component of children's school readiness, the set of skills that helps them prepare for a successful school experience; AtL describes how children interact with their environment to learn. As such, it is distinct from other school readiness constructs like social development and executive function. The purpose of this study was to explore whether children demonstrate distinct profiles of AtL and the potential relationship between profiles and children's executive function and social development. Five distinct profiles of AtL emerged from this study, including positive, negative, and low AtL, the unique ways children adapt to the classroom. Kagan et al. (1995) warn that "perhaps no other dimension is so subject to individual variation as approaches toward learning" (p.27). Indeed, it is crucial to understand how AtL is related yet distinct from other components of school readiness.

In this study, the children in Profile 5 demonstrated many school readiness skills. They had higher AtL, higher EF, and higher peer social skills. In terms of school readiness, this group, which has the second most significant number of children, has developed strengths that will support them as they start school. This research highlights the interconnectedness of children's functioning in the classroom. It is possible that children's AtL, as measured by initiative, drives their curiosity in learning and supports them as they ask a new friend to play. It may also be that children with better social skills can navigate social learning situations. Successfully asking a friend to play can encourage a child to seek a partner in completing a puzzle or building a tower.

In the classroom, teachers can nurture children's school readiness skills by providing opportunities to children to interact with each other and materials in open-ended ways.

One of the other benefits of LPA is that it can capture mixed abilities—children whose distinctiveness may otherwise be lost when comparing across groups. Indeed, this study differentiated between children who had low AtL (profile 1) and children who demonstrate characteristics that defined negative AtL (profile 4). Profile 4, with low teacher ratings, had higher teacher-reported behavioral concerns and poor social skills. Aligned with an explanation offered by Abenavoli et al. (2017), it may be possible that children in profile 1 cannot engage in the classroom, do not seek opportunities to learn, and have trouble engaging in tasks independently. On the other hand, profile 4, with low teacher ratings, may be able to leverage their attention/focus on tasks for learning, despite having more teacher-rated behavioral concerns and more negative interactions with peers. The implication here is that negative engagement in the classroom is still engagement. From a teacher's perspective, redirecting these children or engaging them in more one-on-one situations, where possible, may move them toward more positive AtL. More research is needed on how these profiles are related to children's academic achievement.

Another benefit of LPA is that it can classify groups of children who may require interventions or services (Racz et al., 2016). In this case, profile 2 emerged as a possible profile with attention/concentration problems. This profile was characterized by a slightly higher proportion of Hispanic children who may be Dual Language Learners. It is possible that what may seem to be inattentive behavior may be children who are working through multiple languages or who are slow to process information (Wanless et al., 2011). Previous research (Bustamente & Hindman, 2020) revealed that Latino children had higher levels of AtL, as

measured by teacher report, than non-Latino children. In this study, many Hispanic children were in Profile 5, high AtL. This study may distinguish AtL as distinct from EF, particularly for this group of children.

Conclusion

As children enter school settings, they interact with unfamiliar adults and peers, and many children learn to follow the rules, share toys, and manage the frustration of puzzle pieces that may not fit (McDermott et al., 2014). They go from center to center, exploring materials, building towers with their friends, and having conversations with their teacher, increasing their opportunities to learn (Chen & McNamee, 2011). Children who can successfully navigate across multiple contexts demonstrate adaptive strategies; in this study, a large portion of children, i.e., those in Profile 5, high AtL, had utilized such strategies.

Whatever the patterns of adjustment, teachers can help all children develop adaptive learning behaviors by providing them with strategies to manage frustration, modeling language about how to share and get along with peers, or steps for active listening (Ansari & Gershoff, 2015). These strategies help develop foundational learning skills that support children's successful classroom adaptation and academic achievement. Teachers can nurture these adjustment patterns by supporting the wide diversity of children's classroom strategies and teaching new ones.

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Table 1

Descriptive Statistics and Correlations among Study Variables

Variables	M	SD	Range	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. DECA Initiative	49.86	10.29	28-72										
2. DECA Self-Regulation	51.21	10.19	28-70	.62**									
3. DECA Attachment	49.56	10.01	29-71	.65**	.59**								
4. inCLASS Task Orientation	4.77	.99	1-7	.29**	.24**	.30**							
5. inCLASS Self-Reliance	2.95	1.11	1-7	.22**	.17*	.15*	.41**						
6. Leiter-R Attention	11.08	2.89	2-14	.20**	.24**	.05	.14	.15*					
7. Digit Span	3.54	2.33	0-11	.36*	.25**	.37**	.14	.15	.18**				
8. HTKS	3.32	7.41	0-41	.19*	.20**	.17*	.02	.09	.05	.37**			
9. Pencil Tap	7.69	4.91	0-16	.27**	.24**	.24**	.03	.37	.05	.35**	.43**		
10. DECA Behavioral Concerns	49.81	9.38	29-71	-.52**	-.81**	-.55**	-.29	-.15*	-.19**	-.21**	-.12*	-.26**	
11. inClass Peer Sociability	3.05	1.16	1-7	.26**	.16*	.24**	.35**	.44**	.02	.09	.14*	.27	-.17**

Note: DECA = Devereaux Early Childhood Assessment. HTKS=Head Toes Knees Shoulders.
** p<.01, * p < .05

Table 2

Model Fit Indices

Model	Log likelihood	AIC	BIC	SABIC	Entropy	Smallest class %	LMR Value	BLRT	Inter.
1	-2024	4073.81	4120.81	4082.2					
2	-1917.64	3979.29	3964.47	3894.68	81	22	.06	.001	2>1
3	-1862	3788.01	3977.91	3810.4	73	15	.00	.001	3>2
4	-1831	3747.3	3909.9	3776.69	75	7	.06	.001	4>3
5	-1807.33	3718.66	3920.01	3755.04	76	5	.6	.001	5>4

Note: LMP = Lo Mendell Rubin test. BLRT = bootstrap likelihood ratio test. Inter=Interpretation.

Table 3

Five-Profile Model Results

Variable	Profile 1 Low Approaches to Learning (n=18)	Profile 2 Social Dependent (n=30)	Profile 3 Middle of the Road (n=164)	Profile 4 Low Teacher Ratings (n=26)	Profile 5 Positive Approaches to Learning (n=117)
Adaptive	2	3	2	1	3
Emotion Management	1	2	2	1	3
Initiative	1	2	2	1	3
Involvement with Tasks	-.93	.094	-.130	-.47	.457
Independence	-.48	-.468	-.178	-.39	.568
Attention	-2.669	-1.459	.439	.176	.329

Figure 1

Latent Profiles

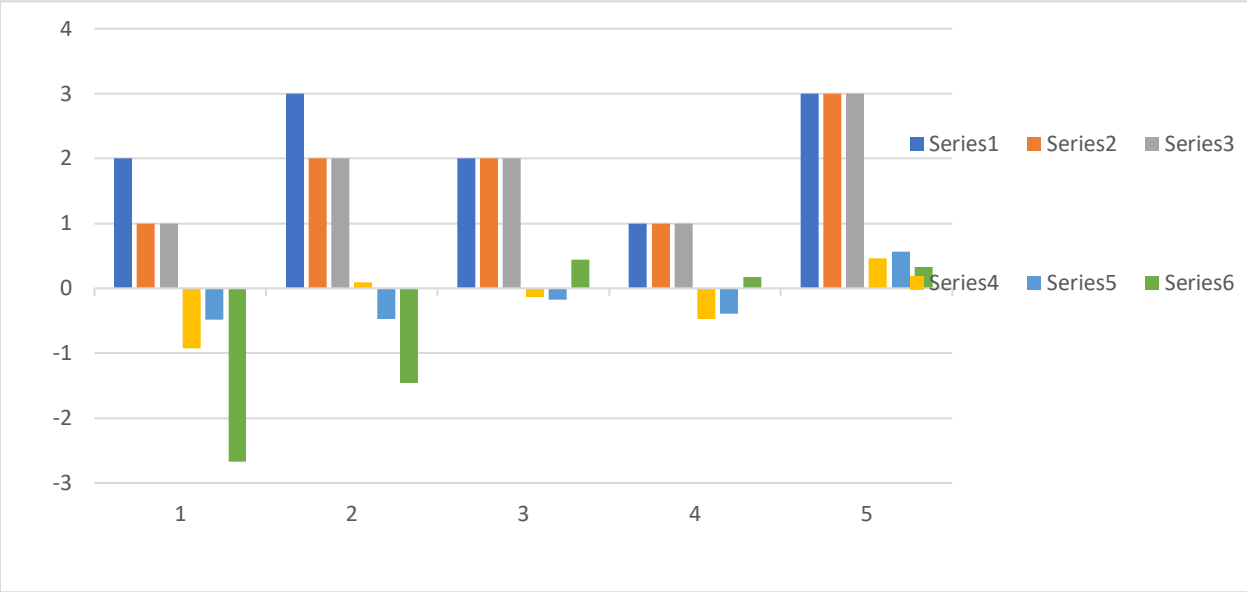

Table 4

Multinomial Logistic Regression Model Results for Profile Differences in Demographic Characteristics

	Profile 1 Low AtL (n=18)			Profile 2 Social Dependent (n=30)			Profile 3 Middle of the Road (n=164)			Profile 4 Low Teacher Ratings (n=26)		
	β	se	OR	β	se	OR	β	se	OR	β	se	OR
Male (n=175)	**1.28***	.62	3.57	**1.06***	.45	2.91	.50ᵀ	.27	1.64	**1.39****	.52	3.99
Ethnicity												
Black (n=77)	1.63	1.49	5.13	.94	.76	2.56	.12	.40	1.13	-.21	.68	.81
Hispanic (n=113)	.05	1.04	1.05	-57	.78	.56	-1.05*	.50	.35	-.96	.65	.38
Other (n=)	**2.63***	1.31	13.97	**1.37ᵀ**	.77	3.94	.72	.46	2.05	**.17**	.72	1.19
Home Language: Spanish (n=125)	**-1.73ᵀ**	.98	.17	**1.42***	.76	.24	-.35	.48	.67	-.11	.60	1.51
Age												
Toddler (n=79)	.33	.71	1.38	-.97	.69	.38	.55	.35	1.73	**1.10ᵀ**	.64	3.02
3 Years Old (n=115)	.34	.67	1.41	.06	.49	1.07	**.83***	.33	2.29	**1.27***	.61	3.58

Note: The regression overall is contrasted with Profile 5, Positive AtL. The coefficients for ethnic groups are contrasts with whites. The Home language is contrasted with English. The age is contrasted with 4-year olds.
ᵀp < .10; *p < .05; **p <. 01.

Table 5

Between-Profile Mean Differences on Concurrent Validation Measures

	Profile 1 Low Approaches to Learning (n=18)	Profile 2 Social Dependent (n=30)	Profile 3 Middle of the Road (n=164)	Profile 4 Low Teacher Ratings (n=26)	Profile 5 Positive Approaches to Learning (n=117)
Executive Function Measures					
Digit Span	1.64[bd]	3.00[g]	3.47[i]	2.00[j]	4.41
HTKS	.13[d]	2.20	2.73[i]	1.65	5.58
Pencil Tap	3.20	7.08	7.03	5.43	8.97
Social Development Measures					
DECA Behavioral Concerns	57.69[d]	51.33[fg]	51.20[hi]	60.71[j]	43.07
inCLASS Peer Sociability	2.46[d]	3.22	2.84[h]	2.34[j]	3.60

Note: HTKS = Head Toes Knees and Shoulders. DECA = Devereaux Early Childhood Assessment. Means indicated with a superscript reflect significant differences. A= Difference between 1, 2, B=Difference between 1, 3, C=Difference between 1, 4, D=Difference between 1,5, E=Difference between 2, 3
F=Difference between 2, 4, G=Difference between 2, 5, H=Difference between 3, 4, I=Difference between 3, 5
J=Difference between 4, 5

Emergency Action Plans: Preparing for a School Crisis

Jolene Battitori and Kevin Walsh

Abstract

School principals are responsible for the safety and well-being of the children entrusted to their care. Parents expect their children to be safe and protected and that school leaders establish and maintain clear lines of communication during a time of crisis. Within their capacity as school leaders, it is incumbent on them to guarantee that school personnel are prepared and responsive in a manner that ensures student and staff safety. In practice, school principals and staff are often forced to assume the role as actual 'first responders' until other professional emergency responders from the community arrive.

This paper highlights the importance for school principals to take a leadership role in ensuring that Emergency Action Plans (EAP) are clearly defined, communicated, reviewed, rehearsed, and revised. It focuses on Professional Standards for Educational Leaders (PSEL) 8, 9 and National Educational Leadership Preparation (NELP) National Education Leadership Preparation 5.3, 6.2, 6.3 standards.

Keywords: School safety, emergency action plan, school leadership

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Background

How often have we heard the comment, "We never thought it would happen here." Whether it is a natural disaster or a tragic death of a student, a crisis often occurs with little or no warning. An event such as a hurricane, a flood, a fire, a student death by suicide or a school shooting has an unexpected and significant impact on all students and the school community. We have learned all too well that a crisis can and often does occur when it is least expected.

Lessons learned from numerous past school emergencies highlight the importance of school officials designing and implementing emergency action plans. Although schools are not traditional response organizations, when a school-based emergency occurs, school personnel need to respond immediately. They provide first aid, notify response partners, and provide instructions before first responders arrive. They also collaborate with their community partners and governmental organizations that have a responsibility delineated in the school emergency operations plan to provide a cohesive, coordinated response. Community partners typically include first responders from law enforcement officers, fire officials, and emergency medical services personnel as well as public and mental health entities. (USDOE, 2013)

In her introduction to *Practical Information on Crisis Planning: A Guide for Schools and Communities*, U.S. Department of Education Secretary, Margaret Spelling wrote:

> Knowing how to respond quickly and efficiently in a crisis is critical to ensuring the safety of our schools and students. The midst of a crisis is not the time to start figuring out who ought to do what. At that moment, everyone involved – from top to bottom – should know the drill and know each other. (US Department of Education, 2007)

Introduction

Lessons from the National Football League

In January 2023, a player for the Buffalo Bills football team collapsed in cardiac arrest after a violent collision with another player. Within 10 seconds, the player was being attended to by on the field medical personnel. "It wasn't coincidence or luck. Rather, it's the result of careful planning and practice – the execution of detailed choreography performed by the medical personnel present at every National Football League game" (Kounang & Sealy, 2023).
The player's life subsequently was saved due in large part to the National Football League's (NFL) implementation of their Emergency Action Plan. "How the NFL and the Buffalo Bills responded to the situation provides the latest example of the crisis communication best practices to follow for those who have to deal with a crisis at their company or organization" (Segal, 2023).

Lessons from a Virginia School Shooting

A six-year-old student brought a loaded gun to school in Virginia and shot and critically wounded his grade-school teacher. School personnel were notified of potential danger on at least three occasions on the same day prior to the shooting. Bibeau and Mervosh (2023) reported on a news conference held shortly after the incident, in which Diane Toscano, the attorney for the injured teacher, rhetorically questioned the actions of the school administration. In her summary of the lawsuit against the school district she asked, "Did administrators call the police? No. Did administrators lock down the school? No. Did they confront the student? No!"

Every decision and every statement made before, during and after this shooting incident subsequently was viewed under the microscope lenses of parent scrutiny and political pressure.

Did the school district have an Emergency Action Plan and was it implemented quickly and effectively?

Lessons from a Tragic School Dismissal

In a suburban upper middle class New Jersey middle school, a sixth-grade student collapsed to the ground as he walked toward the school bus for afternoon dismissal. The school nurse immediately responded to the call for help by the bus dismissal teacher supervisors and an emergency call was placed by the principal to the local police who responded within minutes. Shortly afterward a dispatched emergency first aid squad arrived at the scene. Initial first aid including CPR was administered by school medical personnel to the young student who was not breathing and was unresponsive. The principal later joined the family at the local hospital where all were informed that the young boy had died from an apparent heart attack. The principal convened a meeting of the school crisis team later that evening and the Emergency Action Plan was reviewed and implemented to effectively and efficiently deal with the impact this tragic event had on the school and the community.

Lessons from the World Trade Center 9-11

Phone calls were coming into the school alerting the office staff that there was a developing crisis in New York City where two planes had hit both towers of the World Trade Center. As word spread, students and staff began exhibiting increasingly higher levels of concern and anxiety for family members whom they feared might have been at the scene during this developing catastrophe. Several teachers called the office and requested temporary relief from their teaching duties as they attempted to contact their loved ones. Rumors of the developing crisis spread throughout the school in a matter of minutes and shortly afterwards, parents arrived to pick-up their children from school and take them home where the parents felt they could better

provide safety and comfort. Consistent with the procedures outlined in the district Emergency Action Plan, the principal convened the School Crisis Team, and the plan was refined and implemented to deal with the short term and long-term issues ensuring student and staff safety and supportive services for the school community.

Theoretical Framework

Emergency Action Plans (EAP)

Since the tragic shooting events in April 1999 at the Columbine High School in Littleton, Colorado, the development of school district Emergency Action Plans has become common in many states throughout the country. These plans are identified by different names but often fall under the general category of school safety and security. Most policies require school districts to develop and implement comprehensive plans and procedures that provide for school safety and security in the school district. As typified by the New Jersey Department of Education School Preparedness and Emergency Planning (2023), the plans and procedures typically are memorialized in writing and address issues that include but are not limited to:

a) protection, response and recovery from emergency and crisis situations,

b) establishment and maintenance of a climate of civility, and

c) provisions for supportive services for staff, students, and their families.

In developing a brochure to help schools prepare for crises, the United States Department of Education (USDOE) (2016) compellingly argued:

> Acting now can save lives, prevent injury, and minimize property damage in the moments of a crisis. If you do not have a crisis plan in place, it is time to develop one. If you have one, review, practice, and update your plan.

Preparedness means good planning increases the likelihood of a rapid, coordinated, and effective response when a crisis does occur. National preparedness efforts, including planning, were subsequently updated, and modified by *Presidential Policy Directive (PPD) 8* in March 2011 and describe the nation's approach to preparedness. This directive represents an evolution in the collective understanding of national preparedness, based on the lessons learned from terrorist attacks, hurricanes, school incidents, and other experiences. The USDOE (2013) further recommended that efforts to develop comprehensive Emergency Action Plans be grounded in fundamental principles that address the following five phases: Prevention, Protection, Mitigation, Response, and Recovery.

1. **Prevention** means the capabilities necessary to avoid, deter, or stop an imminent crime or threatened or actual mass casualty incident. Prevention is the action schools take to prevent a threatened or actual incident from occurring.

2. **Protection** means the capabilities to secure schools against acts of violence and manufactured or natural disasters. Protection focuses on ongoing actions that protect students, teachers, staff, visitors, networks, and property from a threat or hazard.

3. **Mitigation** means to decrease the need for response as opposed to simply increasing response capability.

4. **Response** means immediately after becoming aware of a crisis is the time to follow the crisis plan and apply all relevant steps outlined in your preparations. It includes the capabilities necessary to stabilize an emergency once it has already; establish a safe and secure environment; save lives and property; and facilitate the transition to recovery.

5. **Recovery** means the capabilities necessary to assist schools affected by an event or emergency in restoring the learning environment.

It is advised that plans be developed in consultation with local and state law enforcement agencies, health and social services provider agencies, emergency management planners and school and other community resources. The plans and procedures have a built-in requirement for periodic review and dissemination of updated copies. It is commonly recommended that all new

employees receive a copy of the school safety and security plan, and that they are briefed regarding updates and changes to the school safety and security plan (NJ Department of Education, 2023). The EAP should also address the need for in-service training programs to enable employees to recognize and appropriately respond to emergencies and crises.

The following six-step process developed by the U.S. Department of Homeland Security (2013) provides a framework for a collaborative effort to develop an EAP to address comprehensive complex crisis situations.

Step 1 - Form a Collaborative Planning Team

Often referred to as a Crisis Response Team (CRT), this step is based on the concept that any crisis response needs to reflect a collaboratively developed, multifaceted and differentiated response to the various issues that arise directly and indirectly in a crisis. An autocratic leadership approach may be necessary for efficiency but should be limited in scope and in need of multiple eyes and ideas to be robust and complete in its application.

Step 2 - Understanding the Situation

In this phase, the planning team identifies potential threats and hazards, and assesses the risk and vulnerabilities posed by those threats and hazards. This is typically performed through a threat and hazard identification and risk assessment process for the purposes of deciding which threats or hazards the plan should prioritize and subsequently address.

Step 3 - Determine the Goals and Objectives

In Step 3, the planning team decides which of the threats and hazards identified in Step 2 will be addressed in the school EAP. The planning team determines which levels of concern the identified threats and hazards. This decision point is a vital component in the

planning process that is left up to the planning team. Once the planning team has decided which threats and hazards will be addressed in the school EAP, it develops *goals* and *objectives* for each.

Step 4 - Plan Development (Identifying Courses of Action)

In Step 4, the planning team develops courses of action for accomplishing each of the objectives identified in Step 3 (for threats and hazards). Courses of action address what, who, when, where, why, and how for each threat and hazard. The planning team should examine each course of action to determine whether it is feasible and whether those affected by the implementation will accept it.

Step 5 - Plan, Preparation, & Approval

In Step 5, the planning team develops a draft of the school EAP using the courses of action developed in Step 4. In addition, the team reviews the plan, obtains official approval, and shares the plan with community partners such as first responders, local emergency management officials, staff, and stakeholders.

Step 6 - Plan Implementation and Maintenance

Once the plan is through Step 5, it is important to plan for the implementation and monitoring of the plan effectiveness. This can be accomplished through three additional steps: a) train the stakeholders, b) exercise the plan, and c) review, revise and maintain.

a) Training

Everyone involved in the plan needs to know her or his role and responsibility before, during, and after an emergency.

b) Exercise the Plan

The more a plan is practiced and stakeholders are trained on the plan, the more effectively they will be able to act before, during, and after an emergency. Exercises provide opportunities to practice with community partners (e.g., first responders, local emergency management personnel), as well as to identify gaps and weaknesses in the plan.

c) Review, Revise, and Maintain the Plan

This step closes the loop in the planning process. It focuses on additional information gained from exercising the plan to the research collected in Step 2, starting the planning cycle over again. The cycle of improvement is a continuous process even after the plan is developed, published, and disseminated. "Plans should evolve as the school and planning team learn lessons, obtain new information and insights, and update priorities." Figure 1 illustrates these steps in the planning process

Figure 1:

Steps in the Planning Process (USDOE, 2013)

Principal's Response and Responsibility

What happens to the school EAP once it is developed and placed in the hands of all staff? Does it become a dusty document on the shelf like so many policy and procedure documents? Are there lessons to be learned from the NFL, the school district in Virginia or the principal in a rural school where a young student tragically died? If crisis management becomes routinely practiced, when a crisis occurs and a response is needed, the response should be as quick and

successful as witnessed in the life saving efforts of the NFL. Not every school crisis will rise to the level of notoriety as those tragedies that make the national news, but for those who are the victims it is his or her only crisis and it must be managed in a manner that addresses all the issues outlined in the school's Emergency Action Plan. Routine and frequent review, rehearsal and revision will make a difference between a well-managed crisis and one that spirals out of control.

Teaching Case Narrative

"This is 911, what is your emergency?"

"Hello, I am the principal of the Bay Bridge Elementary School and I need to report that we have a gas odor in the building."

When this is the conversation between a principal and the local police dispatcher, it typically foretells a very trying day. In this scenario, the school already started the evacuation procedures linked to this type of emergency. Unfortunately, the event was complicated by the fact that it was the middle of January, and it was only 15 degrees Fahrenheit outside. Although all 650 students and over 100 adults were safely out of the building, the need to find shelter quickly was the next part of the evacuation plan. As firetrucks and emergency vehicles quickly arrived onsite, the principal forcefully requested immediate bus transportation from the transportation department. Thankfully, as part of the emergency steps, the local police knew to immediately corner off the entrance to the building to stop visitors from entering the school grounds. This was a huge step in ensuring the orderly process of the evacuation. Within seven minutes, busses began arriving at the school. Consistent with the established Emergency Evaluation Plan, the two school nurses implemented a triage procedure designed to establish priority boarding on the buses. This priority listing included students and staff who were deemed most at-risk and in need of priority evacuation. This process was overseen by the principal and

implemented under the direction of the assistant principal. Identified students and staff swiftly boarded the busses and were taken off site to one of the other local schools. The principal maintained ongoing communication with the superintendent using a district issued hand-held walkie talkie with district supported cell phones available as a backup. Consistent with the EAP, the superintendent's office was responsible for developing emergency communication to the school community. This was accomplished using an e-mail blast, emergency text messaging and update messaging on the district web site. Over a brief period, the busses continued to arrive, and increased numbers of students and staff were evacuated to other school sites. The principal was responsible for identifying the location of all students and school employees and developed a main list detailing this information. Students and teachers began instruction in the temporary locations within each new school. Lunches were served and school personnel attempted to establish a calm and supportive atmosphere for the children. At the Bay Bridge Elementary School, the emergency personnel were investigating and diagnosing the source of the gas smell and began to take appropriate actions to correct the situation. The finding - someone left a gas burner on just long enough to emit gas without igniting causing a significant odor of gas. The incident was caused by human error and was fortunately resolved without further complications.

The scenario outlined may have had a different ending if not for the diligent work conducted over previous years based on multiple other scenarios that resulted in the need for a solid and a well-practiced emergency preparedness plan. Fortunately, this school district had a well-developed Emergency Action Plan that contained the necessary first steps and well-orchestrated follow up plans.

Although no principal likes to call 911, this type of call becomes less threatening, and the crisis more easily managed when a school community has taken the time to establish and

practice a well-developed emergency action plan. It is a much more confident call and crisis intervention when there are clear and connected steps and efforts among the greater school community.

Because of this type of planning and organization, the principal ended her day successfully; knowing that she was confident and could protect and care for her students and staff no matter what the crisis.

Despite the continued changes in school life, there is something that remains consistent- unexpected events occur. New state-of-the art buildings are often more complicated, student and staff medical needs are intensifying, threats of school violence and safety are rampant. These demands reinforce the need to be prepared.

Developing a strong crisis plan takes the collaborative efforts of many stakeholders who will see things through various lenses. These stakeholders typically include administrators, nurses, custodians, secretaries, teachers, police, and firefighters. Everyone's specialties need to be at the table to develop this type of comprehensive plan that reliably can be used in any crisis. Even more interesting is that when a crisis happens in a school, the building leader must act in a confident and calm manner.

Many people desiring to become school leaders are motivated to be the leader of instruction. Since teachers are often the pipeline to administration, this only makes sense. Part of the journey from the classroom to being the school leader is making the jump from being told what to do in an emergency-more passive- than to being the one responsible for the quiet and calm decisions. Many new school leaders often have little to no experience in this area. But with every crisis counting on them to ensure safety and security, how best can it be ensured that all

members of the school community can count on an administrator? In many states, school safety and security are a priority.

Teaching Notes for Preparing School Administrators

This article focuses on the importance of Emergency Action Plans. School leaders have an awesome burden of ensuring the safety and security needs of their students, staff, and faculty. They need to be able to respond to all emergencies in a manner that exudes confidence and provides for the wellness of all involved in the crisis. States across the county have established plans and require drills. That being highlighted, many emergencies do not follow just one plan. Therefore, there are challenges that school leaders must be able to manage in a crisis and in particular, steps that need to be taken in the first few moments. Coupled with the challenges of managing a crisis in school, many educational leadership programs do not focus on this area. The following teaching points centered on the PSEL and NELP standards are meant to be a guide for developing, implementing, and managing Emergency Action Plans in schools.

Strategies for Creating Effective Emergency Action Plans (PSEL 8 & 9, NELP 5.3)

A relevant teaching point stems from the work of Abraham Maslow (1970). Schools are complex systems involving the interactions of human beings. At the basic needs outlined by Maslow, schools should provide for the safety and security needs of its members. With a focus on Emergency Action Plans, school leaders need to review policies for the effective oral, written, and digital communication to manage any crisis.

Using Data Ethically and Equitably to Align Resources for Emergency Action Plans (PSEL 8 & 9, NELP 6.2)

Another teaching point is the use of data to ensure that the plans that are created using resources ethically and equitably. In a landscape of competing resources in schools, school

leaders need to make careful decisions on how best to allocate resources for the EAP. With marketers sending emails to the inboxes of the teachers, the parents and the public at large, panic can set in and the idea to buy everything that is on the market to make sure the plans don't fail in a crisis may tempt school leaders to avoid the use of data.

On-going Monitoring of the EAP (PSEL 9, NELP 6.3)

A teaching point that is key is the need to reflect on and monitor the EAP in schools. It is an issue with the demanding role of the school leader to constantly reflect and revise the EAP especially following a crisis. However, it is critical for school leaders to evaluate situations and revise policies and procedures to make certain that they can respond to any given situation with confidence and precision. As part of the on-going monitoring, the school leader should ensure that the plans reflect any changes to the law and to the local school district's policies.

Develop Procedures to Communicate Before, During and After a Crisis (PSEL 9, NELP 6.3)

This is a strong example of a teaching point with regards to the necessary components of an effective communication plan as part of EAP. In the advent of instant information, school leaders need to control the communication structure of a crisis to ensure a safe and orderly situation that is responsive to the needs of the students, the staff, and the faculty of the school. The communication plan needs to include all key stakeholders especially with law enforcement agencies. Many states in the nation require that law enforcement be part of the crisis team and part of the planning and practicing of the EAP.

Course Activities and Discussion Topics

The following course activities and discussion topics are meant to educate and aid in the development of the skills required in school leaders in crisis management. Emergency Action Plans are a necessary component in crisis management. In his leadership blog, Dan Nielson

(2023) quoted James Baker, President George H. W. Bush's former Chief of Staff, who authored a book about his grandfather starting a new law firm. "Baker's grandfather gave all those young lawyers five points to remember – they're called the five 'P's: Proper Preparation Prevents Poor Performance." Using the *5 P Model* as the framework, reflect on the following activities.

1. Proper preparation is the key to ensuring that when a crisis occurs, the best possible outcome may result.
    a. Using the first 2 Ps of the *5P Model*, identify three steps a school leader might take to develop *Proper Preparation* of an emergency action plan.
    b. What resources are needed to create an Emergency Action Plan?
2. As part of the effort within the *Proper Preparation* phase, it necessarily becomes important to practice preventing poor performance. With the advent of real-time communication, the greater school community may receive information prior to or simultaneously with the members within the school. When this occurs, the school leader needs to have a plan in place to manage this situation.
    a. What does a school leader need to do for an additional *P* called *Panic* not to become as part of the crisis?
    b. What could a school leader do in the planning phase to address this real-time communication dilemma?
3. School leaders should reflect on how well they personally cope in crisis situations. As part of recognizing how you might cope, locate the Emergency Action Plan of your organization, and complete the following.
    a. Read and review the document.

b. Based on your personal reflection on how you cope in a crisis, identify three personal characteristics that you will need to develop or improve upon to ensure you can lead your staff in an emergency.

4. As part of an on-going practice, many schools typically perform "tabletop" exercises with or without emergency personnel present.
    a. Discuss and develop consensus around emergency events that will serve as the basis for the tabletop exercise.
    b. In 250 words, outline the "tabletop" exercise you would use with your staff within your organization. Address each of the *Six Steps in the Planning Process* (Figure 1 above).
    c. Share your "tabletop" exercise plan with a school leader. Share the feedback with other members of your group.

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The Relationship Between Dark Leadership Behaviors of School Principals and Organizational Power Distance Perceptions of Teachers

Ilke Özten and Aycan Çiçek Sağlam

Abstract

The aim of this study was to determine the relationship between dark leadership behaviors of school principals and organizational power distance perceptions of teachers. The study was designed using a survey model. The sample of the study consisted of 686 teachers selected by proportional cluster sampling technique. The Dark Leadership Scale and the Organizational Power Distance Scale were used as data collection tools. Results revealed that the teachers' perceptions for dark leadership behaviours of school principals and for organizational power distance were at moderate and high levels. Moreover, the teachers' perceptions of dark leadership behaviors differed significantly in terms of gender, seniority, and school type variables, and their perceptions of organizational power distance differed significantly in terms of gender and school type variables. The dimensions of dark leadership were the predictors of instrumental use of power, acquiescence of power, and justification of power.

***Keywords*:** Leadership, dark leadership, school principal

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Introduction

Leadership is one of the important concepts that has been frequently studied and discussed from the past to the present. As a matter of fact, it can be stated that leadership, a concept as old as the history of humanity, has been determinative and guiding for organizations in the field of administration in every period. In this context, a number of leadership approaches have begun to take place in the literature in light of leadership studies started as of 1920s. A review of the literature pertaining to the research and theoretical framework depicts that most of these approaches have investigated constructive, effective, or successful leadership and focused on factors associated with effective leadership, often with an implicit assumption that ineffective leadership simply reflects the absence of leadership (Ballı & Ballı Koca, 2017; Einarsen, Aasland & Skogstad, 2007; Higgs, 2009; Kelloway, Mullen & Francis, 2006).

On the other hand, the idea that negative leader behaviors that express the dark side of leadership should not be ignored and that such behaviors have damaging efffects on the organization and the employees of the organization has recently begun to be accepted (Semann & Slattery, 2009). In this context, since the 1990s, researchers in the field of organizational behavior have started to focus on the dark side of organizations, defining them as the reflections of negative attitudes and behaviors of the individual (Binboğa, Eğin & Gülova, 2018). Within the scope of these studies, negative leader attitudes and behaviors have begun to be defined, and the factors related to the dark side of leadership have been discussed (Başar, Sığrı & Basım, 2016). Thus, the concept of "dark leadership" has taken its place in the literature. Dark leadership behaviors can be analyzed according to the employees' perceptions, and there are various factors that have an impact on their expectations, preferences, and perceptions regarding leadership. According to Hofstede (1980), culture is an important phenomenon that shapes the work values,

motivations, expectations, perceptions, and accordingly behaviors of individuals in a society. Power distance, as a dimension of culture, can be stated as one of those impacts since it directly analyzes the relationship between the leaders and the subordinates. In this regard, this study aimed to find out the relationship between the dark leadership behaviors of school principals and the organizational power distance perception of teachers. First, this study dealt primarily with dark leadership and power distance, and then the relationship between dark leadership and power distance.

Dark Leadership

It can be stated that Conger (1990) is the first researcher who has contributed to the development of the concept of dark leadership. According to Conger (1990), three particular skill areas can cause problems in organizations. These include leaders' strategic vision, their communication and impression management skills, and their general management practices. Unsuccessful strategic visions can often be traced to the inclusion of the leaders' personal aims that do not match their organizations' needs. For example, leaders might substitute personal goals for what should be shared organizational goals (Conger, 1990). Moreover, the blind drive to create this very personal vision could result in an inability to see problems and opportunities in the environment. On the other hand, because some leaders are gifted at communicating, it might be quite easy for them to misuse this ability. For instance, they may present information that makes their vision appear more realistic or appealing than it actually is. They may withhold information that is not favorable to a cause and present instead more positive information or make use of anecdotes designed to distract attention away from negative statistical information (Conger, 1990). Lastly, factors such as an autocratic, controlling management style, poor management of people networks, especially superiors and peers, the creation of disruptive "in group/out group" rivalries, excessive dependence on others, the failure to manage details and

effectively act as an administrator, etc. can cause problems in organizations (Conger, 1990). In this context, Conger (1990) stated that these areas are related to dark leadership. As stated by Başar et al. (2016), Conger's research (1990) has maintained its importance since it included the first views about the existence of dark leadership in the field of leadership literature.

On the other hand, according to Semann and Slattery (2009), the concept of dark leadership has been increasingly popularized in the academic and popular press because more and more leaders are experiencing leadership problems and failures. However, the current literature pertaining to dark leadership lacks a cohesive and clear definition. A problem with the existing definitions of dark leadership is that they only take into account a narrow theoretical position and do not necessarily consider the multidimensional aspects of leadership that incorporate follower and environmental dynamics. Accordingly, dark leadership is an ongoing pattern of behavior exhibited by a leader that results in overall negative organizational outcomes based on the interactions between the leader, follower, and the environment. Organizational goals, morale, and follower satisfaction are hindered through the abuse of power and self-interest by the leader (Semann & Slattery, 2009). Semann and Slattery (2009) stated that this definition emphasizes three important factors for later studies. First, it takes into account the contribution of followers to the leadership process. Leadership cannot exist without followership. Followers are integral to the performance of leadership, and much of the literature does not take into account the impact of followers. Followers can contribute to negative organizational outcomes through compliance with unethical behaviors or active undermining of the leader. Second, it takes into account the situational variables that have been demonstrated to impact leader behavior. Third, the abuse of power and self-interest by both leader and followers is implicit. If follower self-

interests are also met, they are more likely to actively contribute to ongoing negative results for an organization (Semann & Slattery, 2009).

It is seen that studies on dark ladership have started to be carried out for the last decade in Turkey. According to their research findings, Başar et al. (2016) defined dark leadership as the concept that expresses the dark side of leadership and wearisome, nacissistic, insincere, and tyrannous behaviors that are shown to one or more followers, causing physiological and/or psychological harm. As a result, it can be asserted that dark leadership includes negative leadership behaviors that are based on mutual interaction between the leader, follower, and environment and that are constantly exhibited in a way that leads to negative results both individually and organizationally. In addition, within the scope of this study, a genuine workplace-perceived dark leadership scale comprising three dimensions (wearisome behaviors, insincere behaviors, and tyrannous behaviors) in the field of business administration was developed (Başar, 2019, 2020).

Negative leadership behaviors, which express the dark side of leadership, are organizational, ethical, and toxic problems that should be taken into account by decision-makers in organizations (Kurtulmuş, 2019). In this context, negative leadership behaviors are on the agenda in different fields like business administration, psychology, political sciences, etc. In the historical process, researchers have discussed negative leadership behaviors from different perspectives and revealed a series of dark leadership styles related to each other (Lasakova & Remisova, 2015). The first of these studies was carried out by Ashforth (1994). Based on his study with administrators, Ashforth (1994, 1997) introduced the term "petty tyranny" as a type of dark leadership. Ashforth (1994, 1997), defined "petty tyranny" as a description of leaders who lord their powers over subordinates by self-aggrandizement, belittling subordinates,

behaving in arbitrary ways, showing non-contingent punishment, discouraging initiative, and showing a lack of consideration. Building on the work of Ashforth (1994, 1997), Tepper (2000) used the term “abusive supervision” to describe subordinates’ perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact. ‘‘Narcissistic leadership” has been one of the most frequently investigated dark leadership types in the literature (McIntosh & Rima, 2013). A narcissist leader is defined as a person who changes the needs and interests of the organization he leads according to his own selfish needs and beliefs (Rosenthal & Pittinsky, 2006; Stein, 2013). Another type of negative leadership that has been frequently referred in the literature in recent years is "toxic leadership". The term toxic leadership refers to leaders who, by virtue of their destructive behaviors and their dysfunctional personal qualities and characteristics, inflict serious and enduring harm on the individuals, organizations, groups, communities, and even the nations that they lead. On the other hand, related to the studies following toxic leadership, researchers have drawn attention to another type of dark leadership called “destructive leadership” (Einarsen et al., 2007; Padilla, Hogan & Kaiser, 2007). According to Einarsen et al. (2007), destructive leadership includes the systematic and repeated behaviors by a leader that violate the legitimate interest of the organization by undermining and/or sabotaging the organization's goals, tasks, resources, and effectiveness, and/or the motivation, well-being, or job satisfaction of subordinates. At the same time, “unethical leadership” represents one of the most serious examples of managerial misconduct in an organizational setting. Lasakova and Remisova (2015) define unethical leadership as a process of intentional or unintentional, passive or active, and recurrent influencing that harms individuals, organizations or society as a whole. Up to now, negative leadership behaviors and terms, which are frequently on the agenda in light of the studies in the

international literature, have been explained in the historical development process. A review of these terms depicts that they express the dark side of leadership as a whole and define dark leadership (Başar et al., 2016; Higgs, 2009; Semann & Slattery, 2009).

A review of literature shows that dark leadership research in the field of education is limited. Out of these, the qualitative study conducted by Blase and Blase (2002) investigated teachers' perceptions on the abusive behaviors of the school principals and the destructive impacts of these behaviors on teachers. Another recent qualitative study conducted by Aravena (2019) in Chile has revealed the destructive leadership behaviors of school principals according to teacher perceptions, and the destructive leadership behaviors frequently encountered in primary schools.

In the context of the leadership behaviors of the school principals in Turkey, it is seen that the research is towards the leadership styles that emphasize the positive aspects of leadership, such as transformational, ethical, instructional, democratic, cultural leadership, etc. (Özgözgü & Altunay, 2016; Sarıer, 2013). However, it has been revealed in recent studies that leadership is not only a phenomenon that is mentioned with its positive aspects, that negative leadership behaviors expressing the dark side of leadership should not be ignored, and that such behaviors have been harmful to both the organization and the employees of the organization. Considering the dynamic structure of schools and human relations, dark leadership behaviors that can lead to negative results for teachers, such as stress, low job satisfaction, low organizational commitment, and a high intention to leave, might undermine educational activities and cause negative social results in the long run. In this context, a review of national literature shows that recent quantitative studies examining the relationship between the toxic behaviors of the school principals and the teachers' burnout, organizational cynicism, psychological capital

levels of teachers, and abusive and unethical behaviors of the school principals in the national literature are noteworthy (Bahadır, 2018; Çetinkaya, 2017; Demirel, 2015; Demirkasımoğlu, 2018; Katip, 2019; Taşkın, 2019). Also, when the recent qualitative studies on undesirable school principal behaviors in the national literature in recent years are examined, it is possible to come across findings pointing to the problems experienced between teachers and school principals. For instance, in some qualitative studies, teachers stated that school principals have carried out educational policies according to their own interests, discriminated among teachers by considering criteria such as friendship, kinship, political thought, unionism, gender, etc., and they have acted favorably towards teachers in practices such as arranging the curriculum or shift schedule, reward-punishment process, distribution of resources and duties, etc. (Argon, 2016; Demirtaş & Demirbilek, 2019; Gündeyerli & Aypay, 2021; Kahraman, 2020). Similarly, in the qualitative studies conducted by Özdemir and Orhan (2018) and Akbaş and Cemaloğlu (2019), "discrimination" has taken the first place among the undesirable school principal behaviors. In this context, an examination of the dark leadership behaviors of school principals is considered to be essential in terms of taking necessary precautions by senior management in the selection and training of school principals.

Power Distance

According to Hofstede (1980), culture is an important phenomenon that shapes the work values, motivations, expectations, perceptions and, accordingly, behaviors of individuals in a society. A review of the literature pertaining to cross-cultural leadership reveals that most of the studies have focused on first the identification and measurement of cultural dimensions and then on using those dimensions to identify the prevailing leadership styles and behaviors in different contexts and nations. Moreover, a review of the literature reveals that one of the most influential

and widely used cultural dimensions is of Hofstede (1980, 2001). In his earlier study, Hofstede (1980) identified four cultural dimensions: individualism/collectivism, masculinity/femininity, uncertainty/avoidance and power distance. Later, he added future orientation as a fifth and indulgence/restraint as a sixth dimension (Hofstede, 2001; Hofstede, Hofstede & Minkov, 2010). Generally, one or most of these dimensions have been used in cross-cultural leadership studies. Various studies have argued that although other dimensions are equally important in dictating leadership styles and behaviors, power distance can provide the most specific indication as it directly analyzes the relationship between the leaders and subordinates. (Dorfman, Howell, Hibino, Lee, Tate & Bautista, 1997; Goolaup & Ismayilov, 2011; Smith, Peterson & Schwartz, 2002).

Hofstede (1980) defined power distance as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. Institutions such as the family, the school, and the community, are the basic elements of society, while organizations are the places where people work (Hofstede, 1980; Hofstede, et al., 2010). In the study conducted by Hofstede, et al. (2010), the Power Distance Index, was developed to determine the inequalities in the society. According to a range of answers to the basic question of how to handle the fact that people are unequal, each of the partcipant countries was assigned a score indicating its level of power distance. A high score obtained from the power distance index indicates a high power distance, and the low score indicates a low power distance. Turkey was ranked 32nd among 74 countries in the power distance index with 66 points and was among the countries with high social power distance (Hofstede, 1980; Hofstede, et al., 2010).

Power distance in society is directly related to leadership since leadership involves disproportionate influence, and all over the world, the leadership role is associated with power and status. Thus, the way in which power and status are distributed in society is obviously relevant to the leadership role (Dickson, Hartog & Mitchelson, 2003). For example, subordinates in high power distance societies recognize the existence of hierarchy and show deference and obedience to authority figures. They accept the imbalance of power with their administrators. In contrast, subordinates in low power distance societies believe that they are equal to their supervisors in status, view subordinate disagreement with authorities as appropriate, and feel more able to negotiate the rules governing them in the organization (Tyler, Lind, & Huo, 2000).

The Organizational Power Distance Scale, which was developed by Yorulmaz, Çolak, Altınkurt, and Yılmaz (2018), was used as a data collection tool in this study to determine the level of teachers' organizational power distance perception. Yorulmaz et al. (2018) examined four dimensions of organizational power distance: "justification of power", "acceptance of power", "instrumental use of power", and "acquiescence of power".

Justification of Power

Justifcation Power is an attempt to establish a justification for the unequal allocation of power inside the organization. This aspect also entails using legal restrictions to give the administrator's power some legitimacy. An example of legitimizing power is the routine acceptance of privileges and inequalities within the organization (Yorulmaz et al., 2018).

Instrumental Use of Power

Instrumental Use of Power is associated with the fact that employees think they can easily carry out their work if they role-play or remain close to administrators. In this way, the employees consider that they are deriving personal benefits (Yorulmaz et al., 2018).

Acceptance of Power

Acceptance of Power is associated with the internalization of the unequal distribution of power within the organization and its acceptance without questioning (Yorulmaz et al., 2018).

Acquiescence of Power

Acquiescence of Power is related to employees' having lower beliefs about changing the applications of administrators or adapting to situations due to risk factors. In acceptance of power, individuals internalize power and accept it without questioning. On the other hand, in acquiescence of power, they do not object to decisions even though they do not adopt the practices of the administrator (Yorulmaz et al., 2018).

Relationship between Dark Leadership and Organizational Power Distance

It can be said that dark leadership behaviors are the subjective assessments of individuals. This means that the same individual could view an administrator's behavior as negative in one context and as positive in another context, and two subordinates could differ in their evaluations of the same administrator's behavior (Tepper, 2000). In other words, dark leadership behaviors emerge according to the way employees perceive these behaviors. Thus, as power distance directly analyzes the relationship between the leaders and the subordinates and shapes the perception of subordinates due to the ways in which power and status are distributed in organizations, the power distance of subordinates might have an impact on their perception of dark leadership behaviors. A review of literature shows that there is no study investigating the relationship between dark leadership and power distance as a whole, while there are a limited number of studies investigating the relationships between power distance and abusive supervision, a type of dark leadership (Akhtar & Shaukat, 2016; Bolat & Seymen, 2003; Hussain & Sia, 2017; Lian, Ferris & Brown, 2012; Lin, Wang & Chan, 2013; Sakal & Yıldız, 2015).

Since this study is a first in this sense, it is considered important in terms of its contribution to the literature. In this context, the aim of this study was to determine the relationship between the dark leadership behaviors of school principals and organizational power distance perception of the teachers. To this end, answers have been sought for the following research questions:

1- What is the level of teachers' perception for the dark leadership behaviors of school principals?
2- Do the levels of teachers' perceptions for the dark leadership behaviors of school principals differ according to gender, seniority, and school type?
3- What is the level of teachers' perceptions of organizational power distance?
4- Does the level of teachers' perceptions of organizational power distance differ according to gender, seniority, and school type?
5- Do teachers' perceptions for the dark leadership behaviors of school principals predict their organizational power distance perceptions?

Methodology

This study used a survey model in order to determine the relationship between the dark leadership behaviors of the school principals and organizational power distance perceptions of teachers.

Research Sample

The population of the study consisted of 9,092 public school teachers employed at high schools in 11 central districts of İzmir, Turkey during the 2021-2022 academic year. The proportional cluster sampling technique was used to select the participant teachers. The sample size to represent the population was calculated as 368 for a 95% confidence level. It was decided to seek responses from 800 teachers to allow for a low response rate and to eliminate non-usable

surveys due to imprecise completion. Data analysis was conducted with 686 precise data collection tools. Of all the participants, 64.3% were female (n=441), and 35.7% were male (n=35.7). The percentage of teachers with less than 10 years of seniority was 18.2% (n=125), with 10–20 years of seniority was 29.8% (n=204), and with 21 years of seniority or more was 52% (n=357). Additionally, 42.4% (n=291) of the teachers worked in Anatolian high schools, 48.1% (n=330) worked in Vocational Anatolian high schools, and 9.5% (n=65) worked in Anatolian İmam-Hatip (religious) high schools.

Research Instruments

The Dark Leadership Scale and the Organizational Power Distance Scale were used as data collection tools in this study. Dark Leadership Scale was developed by the authors of this current study (Özten & Çiçek Sağlam, 2023). Explanatory (EFA) and confirmatory (CFA) factor analyses were conducted to assess the structural validity of the scale. The results of EFA demonstrated that the scale was comprised of 21 items and three factors, namely, degrading behaviors, narcissistic behaviors and self-seeking and favoritism behaviors. The scale items were scored in the intervals of "1: Never" through to "5: Always". There were not any reverse-scored items on the scale. There are five items under "degrading behaviors", nine items under "narcissistic behaviors", and seven items under "self-seeking and favoritism behaviors" dimension. It is possible to obtain a total score from each factor, and from the scale as a whole. High scores from each factor refer to an increase in teachers' dark leadership perceptions related to that factor and also the scale as a whole. As a result of EFA, factor loading values of the scale were reported to be between 0.66-0.85 for degrading behaviors, 0.59-0.76 for narcissistic behaviors, and 0.55-0.82 for self-seeking and favoritism behaviors. The degrading behaviors dimension explains 22.32% of total variance on its own, while the narcissistic behaviors

dimension explains 27.68%, and the self-seeking and favoritism behaviors dimension explains 28.48%. The ratio of variance explained by three factors was found to be 78.498%. The structure of the scale, which was identified to consist of 21 items accumulated under three factors was confirmed with CFA. The other goodness of fit values computed with CFA were: $\chi 2/sd = 2.99$, RMSEA = .09, RMR = .06, SRMR = .06, CFI = .95, GFI =zc .84, IFI = 95, NFI = .93, NNFI = .95. CFA proved that the model was acceptable (Hair, Black, Babin & Anderson, 2010; Hoe, 2008). The reliability of the scale was examined through Cronbach's alpha coefficient. This coefficient was 0.82 for the degrading behaviors dimension, 0.84 for the narcissistic behaviors dimension, 0.90 for the self-seeking and favoritism behaviors dimension, and 0.92 for the scale as a whole (Özten & Çiçek Sağlam, 2023). The reliability of the scale was re-tested in this study, and Cronbach's alpha coefficients were found to be 0.84 for the degrading behaviors, 0.85 for the narcissistic behaviors, .90 for the self-seeking and favoritism behaviors, and 0.96 for the scale as a whole.

The Organizational Power Distance Scale was developed by Yorulmaz et al., 2018. Explanatory (EFA) and confirmatory (CFA) factor analyses were conducted to assess the structural validity of the scale. Acoording to the results of EFA the scale consisted of 20 items and four factors, namely, acceptance of power, instrumental use of power, justification of power, and acquiescence of power. The scale items were scored in the intervals of "1: Never" through "5: Always". There are three reversely-coded items on the scale. There are six items under the "Acceptance of Power", five under the "Instrumental Use of Power", three under the "Justification of Power", and six items under the "Acquiescence of Power" dimension. A total score is not obtained from the overall scale but could be obtained from its factors. The higher the score, the higher the teachers' organizational power perceptions in terms of that particular

dimension. As a result of EFA, factor loading values of the scale were reported to be 0.57-0.82 for acceptance of power, 0.58-0.69 for instrumental use of power, 0.62-0.81 for justification of power, and 0.53-0.76 for acquiesence of power. The ratio of the total variance explained by the scale was 56.58%. The structure of the scale was confirmed with CFA. The goodness of fit values computed with CFA were: $\chi 2/df$ = 2.29, GFI = .90, AGFI = .86, RMSEA = .07, RMR = .07, SRMR = .07, CFI = .95, NFI = .92, NNFI = .95. The reliability of the scale was examined through Cronbach's alpha coefficient. The reliability of the scale was examined through Cronbach's alpha coefficient. This coefficient was 0.79 for acceptance of power, 0.77 for instrumental use of power, 0.74 for justification of power, and 0.80 for acquiescence of power dimension. In addition, McDonald omega coefficients were 0.79 for acceptance of power, 0.82 for instrumental use of power, 0.73 for justification of power, and 0.85 for acquiescence of power dimension (Yorulmaz et al., 2018). Reliability of the scale was re-tested in this study, and Cronbach's Alpha coefficients were found to be 0.73 for acceptance of power, 0.76 for instrumental use of power, 0.76 for justification of power, and 0.75 for acquiescence of power.

Data Analysis

Descriptive analysis and clustering analysis were used to determine the teachers' perceptions of dark leadership and organizational power distance: a *t*-test for dual comparisons; and a one-way analysis of variance (ANOVA) for comparisons with three or more dimensions. The multivariate regression analysis was used to determine whether or not the teachers' perceptions of dark leadership behaviors of school principals predicted the teachers' organizational power distance perceptions. A correlation coefficient between 0.70 and 1.00 as an absolute value was interpreted as a high level of relationship, between 0.69 and 0.30 as a moderate level of relationship, and between 0.29 and 0.00 as a low level of relationship. For

significant F values, Sidak test was used so as to determine the source of significant differences. Besides, multivariate regression analysis was used to determine whether or not the teachers' perceptions of the dark leadership behaviors of school principals predicted the teachers' organizational power distance perceptions. Prior to the regression analysis, the necessity of the analysis was tested. In this context, an extreme values analysis was conducted. In the identification of extreme values, z scores ($z < 3$) and Mahalanobis distance values were computed. The normality of the distribution was assessed with skewness and kurtosis coefficients, and it was observed that these values ranged in the intervals of "1.5" through "+1.5" (for all variables, skewness coefficients were found to be between – .04 and + 1.18, and kurtosis between -.35 and +.58). In this way, the distribution was considered acceptable (Tabachnick ve Fidel, 2013). In the current study, Variance Inflation Factor (VIF) analysis and tolerance values were employed to determine the possibility of a multicollinearity problem among the variables. When the tolerance values are lower than .10 (Hair, Black, Babin, & Anderson, 2010), and the value of VIF is higher than .10, it points to a multicollinearity problem (Myers, 1990). In the current study, the lowest tolerance value was computed as .31, and highest value of VIF as 3.18; it was therefore decided that there was no multicollinearity problem among the variables.

Results

In this section, the teachers' perceptions of dark leadership and organizational power distance and their views are first discussed, and then the findings regarding comparisons of these views in terms of gender, seniority, and school type are presented. Lastly, it was aimed to determine to what extent teachers' organizational power distance perception explained their perception of the dark leadership behaviors of school principals.

According to the findings from the study, in terms of the dimensions of dark leadership, participants gave the highest scores to the dimensions of narcissistic behaviors ($\bar{x}$ =2.31, S =.96), self-seeking and favoritism behaviors ($\bar{x}$ =2.07, S =.95), and degrading behaviors ($\bar{x}$ =1.81, S =.78), respectively. In addition, cluster analysis was conducted in order to interpret the level of teachers' perceptions of the dark leadership behaviors of school principals in detail. According to the responses, teachers were evaluated as having low, medium and high dark leadership perceptions in terms of degrading behaviors, narcissistic behaviors, self-seeking and favoritism behaviors, and a total dark leadership score. So, cluster analysis results demonstrated that 40.2% of the teachers had moderate and high levels of perception for dark leadership behaviors of school principals in terms of degrading, 55.1% in terms of narcissistic behaviors, 48.6% in terms of self-seeking and favoritism behaviors, and 57.6% in terms of the total score of dark leadership.

In terms of the gender variable, teachers' dark leadership perception did not differ in the dimensions of narcissistic behaviors [$t_{(684)}$=0.98; p>.05], self-seeking and favoritism behaviors [$t_{(684)}$=.321; p>.05], or in the total score [$t_{(684)}$=0.85 p>.05]. In contrast, teachers' dark leadership perception differed significantly in degrading behaviors dimension [$t_{(684)}$=0.13; p<.05]. Female teachers ($\bar{x}$ =1.87, S =.80) had higher perception of school principals' degrading behaviors than male teachers ($\bar{x}$ =1.71, S =.74).

In terms of the seniority variable, teachers' dark leadership perception did not differ in the dimensions of degrading behaviors [$F_{(2\text{-}683)}$ =2.578; p>.05] and narcissistic behaviors [$F_{(2\text{-}683)}$ =2.516; p>.05]. In contrast, teachers' dark leadership perception differed significantly in self-seeking and favoritism behaviors [$F_{(2\text{-}683)}$ =5.000; p<.05] and in the total score [$F_{(2\text{-}683)}$ =3.816; p<.05]. The differences in the dimension of self-seeking and favoritism behaviors and in the total

score were between teachers with less than 10 years of seniority and those with 21 or more years. Teachers with 21 years and more seniority had higher perceptions of school principals' self-seeking and favoritism behaviors and dark leadership behaviors as a whole than teachers with less than 10 years seniority.

In terms of the school type variable, teachers' dark leadership perception did not differ in the dimensions of degrading behaviors [$F_{(2\text{-}683)}$ =1.955; p>.05] and self-seeking and favoritism behaviors [$F_{(2\text{-}683)}$ =1.289; p>.05]. In contrast, teachers' dark leadership perception differed significantly in narcissistic behaviors [$F_{(2\text{-}683)}$=7.284; p<.05] and in the total score [$F_{(2\text{-}683)}$=3.572; p<.05]. The difference in the dimension of narcissistic behaviors was between teachers working in Anatolian high schools and teachers working in other school types. Teachers working in Anatolian high schools had higher perceptions of school principals' narcissistic behaviors than teachers working in other school types. The difference in terms of the total score of the scale was between teachers working in Anatolian high schools and teachers working in Anatolian İmam-Hatip (religious) high schools. Teachers working in Anatolian high schools had higher perceptions of school principals' dark leadership behaviors as a whole than teachers working in Anatolian İmam-Hatip (religious) high schools. In addition, although there was no significant difference statistically, the fact that teachers working in Aantolian İmam-Hatip high schools had the lowest perceptions of school principals' dark leadership behaviors as a whole is a remarkable finding that should be examined.

According to the findings from the study, in terms of the dimensions of organizational power distance, participants gave the highest scores to the dimensions of acceptance of power ($\bar{x}$ =2.85, S =.75), acquiescence of power ($\bar{x}$ =2.62, S =.77), instrumental use of power ($\bar{x}$ =1.99, S =.80), and justification of power ($\bar{x}$ =1.86, S =.81), respectively. In addition, cluster analysis was

conducted in order to interpret the level of teachers' perceptions of organizational power distance in detail. According to the responses, teachers were evaluated as teachers with low, medium, and high organizational power distance perceptions in terms of acceptance of power, instrumental use of power, justification of power, and acquiescence of power. It is identified that teachers' perceptions of organizational power distance were at moderate and high levels. Clustering analysis results demonstrated that 68.6% of the teachers had moderate and high levels of organizational power distance perception in terms of acceptance of power, 47.7% in terms of instrumental use of power, 73.4% in terms of justification of power, and 33.2% in terms of acquiescence of power.

In terms of the gender variable, teachers' organizational power distance perception did not differ in the dimensions of acceptance of power [$t_{(684)}$=.773; p>.05], instrumental use of power [$t_{(684)}$=.359; p>.05], and justification of power [$t_{(684)}$=.733 p>.05]. In contrast, teachers' organizational power distance perception differed significantly in acquiescence of power distance dimension [$t_{(684)}$=0.12; p<.05]. Female teachers ($\bar{x}$ =2.67, S =.76) had a higher perception of acquiescence of power than male teachers ($\bar{x}$ =2.51, S =.79).

In terms of the seniority variable, teachers' organizational power distance perception did not differ in the dimensions of acceptance of power [$F_{(2\text{-}683)}$ =.443; p>.05], instrumental use of power [$F_{(2\text{-}683)}$ =.620; p>.05], justification of power [$F_{(2\text{-}683)}$ =.914; p>.05], and acquiescence of power [$F_{(2\text{-}683)}$ =.914; p>.05].

In terms of the school type variable, teachers' organizational power distance perception did not differ in the dimension of justification of power [$F_{(2\text{-}683)}$ =.825; p>.05]. In contrast, teachers' organizational power distance perception differed significantly in acceptance of power [$F_{(2\text{-}683)}$ =7.390; p<.05], instrumental use of power [$F_{(2\text{-}683)}$ =10.384; p<.05], and acquiescence of

power [$F_{(2\text{-}683)}$ =14.644; p<.05]. The difference in the dimension of acceptance of power was between teachers working in Vocational Anatolian high schools and teachers working in other school types. Teachers working in Vocational Anatolian high schools had lower perceptions of acceptance of power than teachers working in other school types. The differences in the dimensions of instrumental use of power and acquiescence of power were between teachers working in Anatolian İmam-Hatip (religious) high schools and teachers working in other school types. Teachers working in Anatolian İmam-Hatip (religious) high schools had higher perceptions of instrumental use of power and acquiescence of power than teachers working in other school types. In addition, although there was no significant difference statistically, the fact that teachers working in Aantolian İmam-Hatip (religious) high schools had the highest perceptions of organizational power distance, which concurs with the study of Yorulmaz (2021), is a remarkable finding that should be examined.

Finally, this study aimed to determine to what extent teachers' perceptions of the dark leadership behaviors of school principals predict their organizational power distance perception. To this end, a multivariate regression analysis was conducted. The results of the multivariate regression analysis conducted to see whether teachers' perceptions of the dark leadership behaviors of school principals predict their perceptions of acceptance of power are given in Table 1.

Table 1

The Multivariate Regression Analysis Results for Prediction of Acceptance of Power

Variable	*B*	Standard Error	*β*	*t*	*p*	Zero-order (*r*)	Partial (*r*)
Constant	2.858	.078	-	36.640	.000	-	-
Degrading Behaviors	-.037	.059	-.038	-.625	.532	-.024	-.024
Narcissistic Behaviors	.123	.054	.156	2.256	.024	.016	.086
Self-seeking and Favoritism Behaviors	-.109	.053	-.139	-2.045	.041	-.042	-.078
R = .096	R^2 = .009		$F_{(3\text{-}682)}$ = 2.122, p = .096				

According to Table 1, there is a positive but low relationship between the acceptance of power dimension of organizational power distance and the narcissistic behaviors dimension of dark leadership (*r* = .016), and a negative yet low relationship between the dimensions of degrading (*r* = -.024) and self-seeking and favoritism behaviors (*r* = -.042). Based on a review of other variables, a positive yet low relationship has been found between acceptance of power and narcissistic behaviors (*r* = .086), and a negative yet low relationship between acceptance of power and degrading (*r* = -.024) and self-seeking and favoritism behaviors (*r* = -.078). The relationship between all dimensions of dark leadership and acceptance of power is low and not statistically significant (*R* =.096, p>.05).

According to the standardized regression coefficient (β), the relative order of importance of predicting variables on acceptance of power is degrading, narcissistic behaviors, and self-seeking and favoritism behaviors. All dimensions of dark leadership explain 0.9% of the acceptance of power perceptions of teachers. Having examined the results of t-tests regarding the significance of regression coefficients, the dimensions of dark leadership do not predict acceptance of power significantly. Based on the obtained findings, the regression equality of acceptance of power is as follows:

Acceptance of Power = 2.858 -.037 Degrading Behaviors + .123 Narcissistic Behaviors - .109 Self-seeking and Favoritism Behaviors

The results of the multivariate regression analysis conducted to see whether teachers' perceptions of the dark leadership behaviors of school principals predict their perception of instrumental use of power are given in Table 2.

Table 2

The Multivariate Regression Analysis Results for Prediction of Instrumental Use of Power

Variable	*B*	Standard Error	*β*	*t*	*p*	Zero-order *(r)*	Partial (*r)*
Constant	1.382	.080	-	17.364	.000	-	-
Degrading Behaviors	-.028	.060	-.028	-.473	.636	.230	-.018
Narcissistic Behaviors	.218	.056	.259	3.921	.000	.308	.148
Self-seeking and Favoritism Behaviors	.073	.055	.087	1.336	.182	.275	.051
R = .312	R^2 = .097		$F_{(3-682)}$ = 24.539, p = .000				

According to Table 2, there is a positive and moderate relationship between the instrumental use of power dimension of organizational power distance and the narcissistic behaviors dimension of dark leadership (*r* = .308). In addition, there is a positive and low relationship between instrumental use of power dimension of organizational power distance and degrading (*r* = .230) and self-seeking and favoritism behaviors (*r* = .279). Based on a review of other variables, a positive yet low relationship has been found between instrumental use of power and narcissistic behaviors (*r* = .148) and self-seeking and favoritism behaviors (*r* = .051), and the negative yet low relationship between instrumental use of power and degrading (*r* = -.018). The relationship between all dimensions of dark leadership and instrumental use of power is low and significant (*R* =.312, *p* < .05).

According to the standardized regression coefficient (β), the relative order of importance of predicting variables on instrumental use of power is narcissistic behaviors, self-seeking and favoritism behaviors and degrading behaviors. All dimensions of dark leadership explain 9.7% of the instrumental use of power perception of teachers. Having examined the results of t-tests regarding the significance of regression coefficients, the dimensions of dark leadership predict instrumental use of power significantly. Based on the obtained findings, the regression equality of instrumental use of power is as follows:

Instrumental Use of Power = 1.382 - .028 Degrading Behaviors+ .218 Narcissistic Behaviors + .073 Self-seeking and Favoritism Behaviors

The results of the multivariate regression analysis conducted to see whether teachers' perceptions of the dark leadership behaviors of school principals predict their perceptions of justification of power are given in Table 3.

Table 3

The Multivariate Regression Analysis Results for Prediction of Justification of Power

Variable	*B*	Standard Error	*β*	*t*	*p*	Zero-order (*r*)	Partial (*r*)
Constant	1.492	.083		18.029	.000		
Degrading Behaviors	.006	.062	.005	.089	.929	.159	.003
Narcissistic Behaviors	-.032	.058	-.038	-.553	.580	.164	-.021
Self-seeking and Favoritism Behaviors	.209	.057	.246	3.693	.000	.220	.140
R = .221	R^2 = .049		$F_{(3-682)}$ = 11.671, p = .000				

According to Table 3, there is a positive but low relationship between justification of power dimension of organizational power distance and degrading (*r* = .159), narcissistic behaviors (*r* = .164), and self-seeking and favoritism behaviors (r = .220). Based on a review of other variables, a positive yet low relationship has been found between justification of power and self interested and favoritist behaviors (*r* = .140), and a negative yet low relationship between

justification of power and narcissistic behaviors (r = -.021). The relationship between all dimensions of dark leadership and justification of power is negative yet low and significant (R =.221, $p < .05$).

According to the standardized regression coefficient (β), the relative order of importance of predicting variables on justification of power is self-seeking and favoritism behaviors, narcissistic behaviors, and degrading. All dimensions of dark leadership explain 4.9% of justification of power perception of teachers. Having examined the results of t-tests regarding the significance of regression coefficients, the dimensions of dark leadership predict the justification of power significantly. Based on the obtained findings, the regression equality of justification of power is as follows:

Justification of Power = 1.492 + .006 Degrading Behaviors - .032 Narcissistic Behaviors + .209 Self-seeking and Favoritism behaviors

The results of the multivariate regression analysis conducted to see whether teachers' perceptions of the dark leadership behaviors of school principals predict their perceptions of acquisition of power are given in Table 4.

Table 4

The Multivariate Regression Analysis Results for Prediction of Acquisition of Power

Variable	*B*	Standard Error	*β*	*t*	*p*	Zero-order *(r)*	Partial (*r*)
Constant	2.332	.080		29.067	.000		
Degrading	-.038	.060	-.039	-.638	.524	.108	-.024
Narcissistic Behaviors	.094	.056	.116	1.687	.092	.152	.064
Self-seeking and favoritism behaviors	.066	.055	.081	1.203	.229	.146	.046
R = .159	R^2 = .025		$F_{(3\text{-}682)}$ = 5.899, p = .001				

According to Table 4, there is a positive but low relationship between acquisition of power dimension of organizational power distance and degrading (r = .108), narcissistic

behaviors (r = .152), and self-seeking and favoritism behaviors (r = .146). Based on a review of other variables, a positive yet low relationship has been found between acquisition of power and narcissistic behaviors (r = .064) and self-seeking and favoritism behaviors (r = .046), and the negative yet low relationship between acquisition of power and degrading (r= -.024). The relationship between all dimensions of dark leadership and acquisition of power is positive yet low and significant (R =.159, p < .05).

According to standardized regression coefficient (β), the relative order of importance of predicting variables on acquisition of power are narcissistic behaviors, self-seeking and favoritism behaviors, and degrading. All dimensions of dark leadership explain 2.5% of acquisition of power perception of teachers. Having examined the results of t-tests regarding the significance of regression coefficients, the dimensions of dark leadership predict acquisition of power significantly. Based on the obtained findings, the regression equality of acquisition of power is as follows:

Acquisition of Power= 2.332 – .038 Degrading Behaviors+ .094 Narcissistic Behaviors + .066 Self-seeking and Favoritism Behaviors.

Discussion, Conclusion and Recommendations

According to the results of the study, respondent teachers had medium or high perceptions of dark leadership behaviors of school principals and this result is thought to indicate a problem or problems in the context of teacher-principal interactions. Similarly, as a result of the qualitative study with the teachers from 31 science state high schools in the Aegean Region, it was detected that the teachers working in İzmir and Aydın had more problems than the teachers working in other cities in teacher-principal interactions (Aksoy & Sarpkaya, 2020).

A review of the literature shows that in the educational field there is no study in which teachers' perceptions of dark leadership behaviors of school principals as a whole were examined. On the other hand, the seven studies conducted by the "Toxic Leadership Scale" developed by (Çelebi, Güner & Yıldız, 2015), showed that teachers had a low level of perception for toxic leadership behaviors of school principals (Bahadır, 2018; Çetinkaya, 2017; Demirel, 2015; Demirtaş ve Küçük, 2019; Ertuğrul, 2021; Mammadova, 2021; Zenginoğlu, 2021). In contrast, according to the results of the study conducted by İlhan (2019), teachers had a moderate level of perception for toxic leadership behaviors of school principals. Factors such as the scales used in the study, the demographic differences like province, school type, sample, the quality of teacher-principal interactions, school culture, organizational power distance etc. might impact the results of the studies. On the other hand, considering the fact that negative leadership behaviors have recently begun to be examined scientifically and the number of studies is limited, it can be said that an increase in the number of studies should allow the researchers to make comparisons more and more significantly. In this study, it was determined that teachers had the highest level of perception in terms of narcissistic behaviors, followed by self-seeking and favoritism behaviors and degrading, respectively. According to McIntosh & Rima (2013) narcissistic leadership has been one of the most frequently studied dark leadership types in the literature. However, a scale that directly measures narcissistic leadership is not yet available in the literature. Some researchers evaluate narcissistic leadership by associating it with destructive and toxic leadership, while others examine leaders through the narcissistic personality inventory (Padilla et al., 2007; Schmidt, 2008; Uygur & Öğretmenoğlu, 2018). Using the "Toxic Leadership Scale" developed by Schmidt (2008) with 30 items, it was concluded that narcissistic leadership is the most common type of leadership among principals in the study conducted by

İzgüden, Eroymak and Erdem (2016) in the health sector. On the other hand, in the study conducted in the field of education using the "Toxic Leadership Scale" (Schmidt, 2008), which was rearranged by Dobbs (2014), reducing the number of items to 15 and adapted into Turkish by Demirtaş and Küçük (2019), teacher perceptions were found to be low in the narcissism dimension as in all dimensions. In this context, study results differ. It is a serious cause of stress for the subordinates to work with a narcissistic leader in the same organization. Narcissistic leaders want to centralize power and expect obedience from their subordinates; they think they always know the truth and can't stand differences of opinion. Lacking empathy, they exploit their subordinates even more; they do not give initiative to their subordinates and allow them to participate in the decision-making process (Uygur & Öğretmenoğlu, 2018). In this context, it can be stated that narcissistic leadership is closely related to autocratic leadership. Some of the study results showed that teachers working in high schools think that principals are more autocratic compared with the principals in primary and secondary schools (Güzelgörür, Demirtaş & Balı, 2021). In addition, a review of the literature pertaining to the studies in terms of the participation of teachers in the decision-making process in Turkey depicts that most of the studies showed that teachers have had the opportunity to participate in the decision-making process at schools at a low level, and that they have participated in administrative decisions at a low level, but more frequently in instructional decisions (Aksay & Ural, 2008; Aksoy ve Sarpkaya, 2020; Dülger, 2021; Göksoy, 2014; Gürkan, 2006; Karagöz, 2009). On the other hand, in one of the qualitative studies conducted by Özdemir and Orhan (2018), the most disturbing school principal behaviors such as discrimination, inconsistency, not being open or not giving importance to different opinions, and not being modest were expressed by the teachers. In another qualitative study conducted by Aksoy and Sarpkaya (2020), it was detected that among the items of the scale, the

most important communication problem was that principals are not open to the criticism of the teachers. As a result, it can be said that studies have stated that narcissistic behaviors cause problems in teacher-principal interactions in the educational field and may lead to negative results for teachers such as stress, low job satisfaction, low organizational commitment, and high intention to leave etc.

In this study, teachers' perceptions of narcissistic behaviors are followed by self-seeking and favoritism behaviors and degrading behaviors, respectively. Carrying out educational policies according to one's own interests, discrimination among teachers by considering criteria such as friendship, kinship, political thought, unionism, gender, etc., acting favorably towards teachers, in practices such as arranging the curriculum or shift schedule, reward-punishment process, distribution of resources and duties, establishing self-interested relationships with the teachers etc. are negative principal behaviors that can be named as self-seeking and favoritism behaviors. There are studies on the favoritism of school principals in international literature. For instance, in a qualitative study conducted by Spaulding (1997) with 81 teachers in five states and 15 cities of the United States, 51 of 62 teachers stated that school principals discriminated among teachers in the decision-making process at schools (Quot. Akuffo & Kivipöld, 2017). Again, in the study conducted by Mattar (2016) in educational institutions in Lebanon, it was revealed that school principals discriminated among teachers (Act. Akuffo & Kivipöld, 2017). In addition, in some qualitative studies conducted in Turkey, teachers stated that school principals have carried out educational policies according to their own interests, have discriminated among teachers by considering criteria such as friendship, kinship, political thought, unionism, gender etc. and they have acted favorably towards teachers in practices such as arranging the curriculum or shift schedule, reward-punishment process, distribution of resources and duties, etc. (Argon, 2016;

Demirtaş & Demirbilek, 2019; Gündeyerli & Aypay, 2021; Kahraman, 2020). Similarly, in the qualitative studies conducted by Özdemir and Orhan (2018) and Akbaş and Cemaloğlu (2019), "discrimination" has taken the first place among the undesirable school principal behaviors. According to Demirtaş and Demirbilek (2019), favoritism is one of the causes of problems and conflicts that arise in schools. Studies showed that favoritist behaviors have caused negative results for teachers such as low organizational justice, low motivation, low performance, etc. (Akbaş & Cemaloğlu, 2019; Demirtaş & Demirbilek, 2019; Özdemir & Orhan, 2018). On the other hand, Akbaş and Cemaloğlu (2019) argue that discrimination among teachers is an important indicator showing the serious problems with school principals appointed in recent years. As a matter of fact, nearly 40,000 school principals throughout Turkey have changed appointment in the last seven to eight years (Akbaş & Cemaloğlu, 2019). In this context, according to Argon (2016), one of the main reasons for favoritism is the lack of serious criteria for training, selection, appointment, promotion and evaluation of school principals in the Turkish Education System. In this context, unethical behaviors such as behaving arbitrarily, giving priority to kinship, favoritism, discrimination among teachers, etc. arise. Principals who are appointed in this way have to act in a similar way to the positions they come from, or they behave similarly due to their inadequacies (Argon, 2016). Therefore, in relation to the results of this study, it is thought that the underlying causes of the self-interested and favoritist behaviors of school principals should be examined, focusing on solving the problems and taking preventive measures for such behaviors.

In this study, teachers' perception of degrading is the lowest. Degrading behaviors include belittling teachers, humiliating teachers in front of students and colleagues, taking their anger out on teachers, and shouting at teachers. The low perception of teachers reveals that

school principals never or rarely exhibit the listed behaviors, which is a desired result. As a matter of fact, according to Taşkın (2019), it is not common for school principals to exhibit degrading behaviors towards teachers in the school environment. On the other hand, the literature shows that degrading behaviors are also examined within the scope of two dark leadership types: petty tyranny and abusive supervision. (Ashforth, 1994; Bies & Tripp, 1996; Tepper, 2000). No research on petty tyranny has been found in the sample of Turkey. There is also limited research on abusive supervision (Serdar & Özsoy, 2019). When the studies in the field of education are examined, three studies in recent years draw attention (Aksu, 2017; Demirkasimoğlu, 2018; Taşkın, 2019). In the aforementioned studies, teachers' perceptions of abusive supervision were found to be at a low level which concurs with this study (Aksu, 2017; Demirkasimoğlu, 2018; Taşkın, 2019). Achieving success in schools is directly proportional to the effectiveness of the school principals' communication with their teachers (Şimşek & Altınkurt, 2009). Communication is an important process frequently used by school principals to achieve organizational goals. According to Aksoy and Sarpkaya (2020), it is primarily the responsibility of school principals to conduct and maintain an effective communication process in schools. The school principal has to cooperate with the teachers and get their support while carrying out this process. Otherwise, the organization cannot achieve success. In this context, the fact that school principals with poor communication skills see teachers only as subordinates instead of accepting them as individuals causes problems in mutual relations (Aksoy & Sarpkaya, 2020). Moreover, school principals with poor communication skills will be more likely to engage in degrading behaviors such as belittling and humiliating teachers, taking their anger out on teachers, and shouting at teachers. In the qualitative study conducted by Yalçın (2017), teachers stated that the communication skills of school principals were insufficient. In

the study of Çelebi and Taşçı Kaya (2017), humiliation and belittlement were counted among the undesirable school principal behaviors most frequently encountered by teachers. In this study, although it was determined that 60% of the teachers had a perception of low-level degrading, the ratio of teachers with medium and high-level perceptions was 40%, and this ratio is considered to be undeniably significant. As a result, it can be said that the lack of communication or poor communication skills result in the undesirable degrading of the school principals that cause problems in schools. In this context, studies may be carried out to eliminate the communication deficiencies of the school principals.

In this study, teachers' perceptions of the dark leadership behaviors of school principals differ significantly in terms of gender, seniority, and school type variables. In terms of the gender variable, teachers' dark leadership perception differed significantly in degrading dimension. Female teachers had higher perception of school principals' degrading behaviors than male teachers. Degrading behaviors are also related to mobbing in schools. In this context, Di Martino, Hoel, and Cooper (2003) reported that in many studies about the relationship between gender and mobbing in Europe, it was concluded that female employees were more likely to experience mobbing than male employees. Compared to male teachers, female teachers are more likely to encounter mobbing at schools (Çelebi & Taşçı Kaya, 2014). In this context, in the studies conducted by Yıldırım (2010) and Akbaba and Gümüş (2020) on the mobbing behaviors of school principals in primary schools and in high schools by Bölükbaşı (2015), it was revealed that female teachers faced more mobbing behaviors than male teachers. However, according to Özen (2016), while men perceive mobbing behaviors more as an individual problem, women tend to define mobbing behaviors as an organizational problem in terms of their causes and results. Therefore, it can be stated that in the current study that female teachers consider the

degrading of school principals as a problem that needs to be addressed from an organizational perspective.

In terms of the seniority variable, teachers' perceptions of dark leadership behaviors differed significantly in self-seeking and favoritism behaviors dimension and in the total score of dark leadership. The differences in the dimension of self-seeking and favoritism behaviors and in the total score were between teachers with less than 10 years of seniority and those with 21 years and more. Teachers with 21 years and more seniority had higher perceptions of school principals' self-seeking and favoritism behaviors and dark leadership behaviors as a whole than teachers with less than 10 years seniority. In some of the studies conducted in the field of education in the sample of Turkey (İlhan, 2019; Karlı, 2022; Zenginoğlu, 2021), it was determined that toxic leadership perceptions increase as the seniority increases, and these findings are in line with the results of the current study. In addition, in the studies conducted by Cesur and Erol (2019) and Kahveci, Gülay, and Bahadır (2019) on teachers' opinions about the favoritism of the school principals in Turkey, it was concluded that as the seniority increases, the perceptions of teachers towards the favoritism of the school principals also increase. In this study, teachers with less than ten years of seniority had lower perceptions of self-seeking and favoritism behaviors and dark leadership behaviors as a whole. This result can be explained by a limited experience with the school principal and the high probability of abstaining in the process of adapting to school. As the teachers with 21 years and above of seniority have been working with the school principal for a long time and have more professional experience, their opinions may vary. The fact that the teachers in this group mostly deserved retirement may have led them to freely express their opinions without any hesitation.

In terms of the school type variable, teachers' perceptions of dark leadership behaviors differed significantly in narcissistic behaviors dimension and the total score of dark leadership. The difference in the dimension of narcissistic behaviors was between teachers working in Anatolian high schools and teachers working in other school types. Teachers working in Anatolian high schools had higher perceptions of school principals' narcissistic behaviors than teachers working in other school types. The difference in terms of the total score of the scale was between teachers working in Anatolian high schools and teachers working in Anatolian İmam-Hatip (religious) high schools. Teachers working in Anatolian high schools had higher perceptions of school principals' dark leadership behaviors as a whole than teachers working in Anatolian İmam-Hatip (religious) high schools. In addition, although there was no significant difference statistically, the fact that teachers working in Anatolian İmam-Hatip (religious) high schools had the lowest perceptions of dark leadership behaviors of school principals as a whole is a remarkable finding that should be examined. There are a limited number of studies in the literature comparing teachers' perceptions of school principals' dark leadership behaviors in terms of school type. In these studies, teachers' perceptions of school principals' toxic leadership and abusive supervision behaviors, which are among the dark leadership types in the literature, were determined and a comparison was made according to education level (primary school-secondary school-high school). In this context, it was concluded that teachers working in high schools had higher perceptions of toxic leadership by Ertuğrul (2021) and Karlı (2022), and abusive supervision perceptions by Taşkın (2019) compared to teachers working in primary and/or secondary schools. The number of teachers in primary and secondary schools is lower than in high schools. For this reason, it can be said that teacher-principal relations in schools are more sincere and teachers have the chance to communicate with the principals when they need

to. High schools, on the other hand, are more crowded in terms of the number of students and teachers compared to primary and secondary schools. In this context, teacher-principal relations in high schools are more formal and limited. Therefore, it is expected that teachers working in high schools have higher perceptions of toxic leadership and abusive supervision than teachers working in primary and/or secondary schools. On the other hand, the fact that teachers working in Anatolian Imam Hatip high schools have lower perceptions of school principals' dark leadership behaviors compared to other school types has been one of the remarkable findings of the current study. In the literature, the number of studies on teacher-principal relations in Anatolian Imam Hatip high schools is quite limited. In this context, in the study conducted by Bahadır (2018), the perceptions of teachers working in Anatolian Imam Hatip high schools towards toxic leadership behaviors of school principals were found to be at a lower level than teachers working in Anatolian high schools and Vocational Anatolian high schools. The low number of teachers in relation to the number of students in Anatolian Imam Hatip (religious) high schools compared to other school types may have an effect on teacher-principal relations. However, it is thought that factors such as the purpose of the establishment of these schools, their unique structure, their emphasis on religious education and teaching rather than academic performance, and organizational power distance, which is the other variable of this study, are also related to the current study results.

According to the results of the study, it was identified that teachers' perceptions of organizational power distance was at moderate and high levels. Turkey was ranked 32nd among 74 countries in the power distance index with 66 points, and was among the countries with high social power distance (Hofstede, 1980; Hofstede, G. et al., 2010). Therefore, the finding in the current study that the high number of teachers who have medium and high organizational power

distance perception, especially in the context of acceptance of power and acquiescence of power, is in line with Hofstede's (2001, 2010, 2011) determination for Turkey. In the literature, there are studies supporting the current study that the employees in the countries with high power distance also have high organizational power distance. For example, in the study conducted by Akhtar and Shaukat (2016), organizational power distance perception of healthcare professionals in Pakistan, which has high social power distance, was also revealed at a high level. Similarly, in the study conducted by Hussain and Sia (2017), organizational power distance perception of employees in the field of business in India, which has high social power distance, was also found to be high. Similarly, there are studies in the literature in which teachers' perception of organizational power distance is moderate or high in Turkey (Ateş, 2019; Deniz, 2013; Gül, 2019; Kocabıyık, 2017; Özkan, 2014; Yaman & Irmak, 2010; Yılmaz et al., 2016; Yorulmaz, 2021; Ziblim, 2020). As a result, it is thought that it can be inferred that the employees in countries with high social power distance will also have high organizational power distance perception.

In this study, it was seen that the teachers had the perception of acceptance of power the most, followed by acquiescence of power, instrumental use of power, and justification of power, respectively. Similarly, in the studies conducted by Çiçek Sağlam and Göldede (2020), Çolak, Yorulmaz, and Altınkurt, (2022), Yorulmaz (2021), and Ziblim (2020), the teachers had the perception of acceptance of power the most, followed by acquiescence of power, instrumental use of power, and justification of power, respectively. In this context, as Yorulmaz (2021) emphasizes, it can be said that teachers' perception of acceptance of power and acquiescence of power are relatively high in Turkey. According to Yorulmaz (2021), teachers' high perception of acceptance of power and acquiescence of power are related to the high social power distance in

Turkey. Because acceptance of power means internalizing the unequal distribution and use of power within the organization and accepting it without questioning, while acquiescence of power means that employees do not oppose these practices due to their low belief that power owners can make changes in their practices (Yorulmaz et al., 2018).

In this study, teachers' perceptions of organizational power distance differed significantly in terms of gender and school type variables. In terms of the gender variable, teachers' organizational power distance perception differed significantly in acceptance of power dimension. Female teachers had a higher perception of acceptance of power than male teachers. Although there is no significant difference in the study of Göl Dede (2019) acceptance of power and acquiescence of power, in the study of Ziblim acceptance of power, and in the study of Yorulmaz (2021) all the dimensions of organizational power distance perception of the female teachers were found to be higher than of the male teachers. In the study conducted with the faculty members by Çiçek Sağlam et al. (2018), it was found that female academicians' acceptance of power perception was higher and although there was no significant difference, female academicians' perceptions of organizational power distance were higher in other dimensions as well. The fact that female employees had higher perception of organizational power distance than male employees can be associated with social power distance. Glick (2016) revealed in his study that women's representation in administration is lower in the countries with a high power distance. In other words, it can be said that in the countries with a high power distance such as Turkey, men are seen more in administrative positions and there is a high expectation in this direction, which causes the distribution of power in the organization and the use of force by male administrators to be accepted without questioning and the implementation of the practices without objection.

In terms of the school type variable, teachers' organizational power distance perception differed significantly in acceptance of power, instrumental use of power and acquiescence of power dimensions. The difference in acceptance of power is between Vocational Anatolian high schools and the other school types. The teachers working in Vocational Anatolian high schools were found to accept power less than the teachers working in other school types. This result, means that the teachers working in these schools question the decisions taken by the school principals and oppose these decisions when necessary, and do not welcome unequal administrative practices and privileges in the institution. It can be stated that Vocational Anatolian high schools have a unique organizational culture when compared to other types of high schools. As a matter of fact, the plans and programs in such schools, the presence of different departments in the same physical environment, the presence of professionally equipped teachers and administrators such as the field chief in each department, the environmental relations, student, parent and environmental expectations due to the practices in business organizations differ. Therefore, the fact that different programs applied in such schools require different expertise in business organizations can enable teachers to be more free in the decision-making process in their own fields and to be more professional in their relations with the school principals. This may be the reason why teachers' perceptions of organizational power distance in the dimension of acceptance of power are at a lower level than the other school types. On the other hand, the difference in instrumental use of power and acquiescence of power is between Anatolian İmam-Hatip (religious) high schools and other schools types. The perception of the teachers working in Anatolian İmam-Hatip (religious) high schools in instrumental use of power and acquiescence of power dimensions were found to be higher than the teachers working in other school types. In addition, although there was no significant difference statistically, the fact

that teachers working in Anatolian İmam-Hatip (religious) high schools had the highest perceptions of organizational power distance which concurs with the study of Yorulmaz (2021) is a remarkable finding that should be examined. The purpose of the establishment of these schools, their unique structure, and their emphasis on religious education and teaching rather than academic performance may be related to the current results. As a matter of fact, according to Hofstede (2001), religious beliefs and values are more prominent in societies with high power distance. In this context, it can be stated that the existence of a relatively dominant culture of obedience in Anatolian İmam-Hatip (religious) high schools can be effective in terms such as inequalities of power and privileges being accepted as normal, respect for the principal due to his legal position, and implementation of the decisions taken without questioning.

The final purpose of the current study was to determine whether the teachers' perception of dark leadership behaviors of school principals predicted their organizational power distance perception. Power distance dimension is one of the most important cultural dimensions that affect the dominant leadership behaviors in the organization (Goolaup & Ismayilov, 2011). In this context, studies in the international literature show that the leadership approaches adopted in high and low power distance countries differ. For instance, in high power distance countries like Japan and France where all the powers are concentrated in the hands of the superiors, it is more likely that managers will adopt an authoritative leadership style and closely monitor their subordinates in order to lead to a higher level of satisfaction, performance and productivity. In contrast, in low power distance countries like Sweden and the United Kingdom there is higher probability that there will be more focus on participative leadership and where subordinates will be consulted before taking any decisions, giving rise to collective decision makings (Hofstede et al., 2010). Similarly, in the study conducted by Adsit, London, Crom, and Jones (1997), it is

observed that participatory leadership approach is exhibited in low power distance cultures where employees have limited dependence on their managers, whereas autocratic leadership behaviors are common in high power distance cultures where employees' dependence on their managers is strong. On the other hand, there are limited study findings supporting these study results in the Turkish sample. For example, in the study by Akyol (2009) in the field of business, in which the relationship between power distance and leadership in organizational culture was examined, it was concluded that the higher the power distance perception of the employees, the higher the level of displaying the work-oriented leadership style of the top administrator. Work-oriented leadership style means that the administrators are the leaders who focus on the work results rather than the employees, do not care about the personal needs and expectations of the employees and do not make an effort at this point (Akyol, 2009). In the Turkish sample, no study has been found that directly addresses the relationship between teacher perceptions of school principals' dark leadership behaviors and organizational power distance perception in the field of education. However, although it is not named in schools with high power distance perception, findings showed that the school principals display dark leadership behaviors. In this context, in the study conducted by Yılmaz et al. (2016) to determine the cultural values adopted by teachers working in preschool, primary and secondary schools, teachers' power distance perception was found to be high. According to the researchers, this result coincides with the results of Hofstede's (2010) study, including Turkey. The hierarchical social structure that exists in Turkish culture makes itself felt especially in teacher-principal relations in schools, in this context, the decisions taken by the principals in schools are not questioned, and practices contrary to equality, justice and merit are frequently observed (Yılmaz et al., 2016). As a result, the current study concludes that the dimensions of dark leadership are the predictors of instrumental use of power,

acquiescence of power, and justification of power. There is no significant relationship between dark leadership and acceptance of power.

Consequently, the findings of this study show that school principals with effective leadership skills play an important role in the implementation of educational processes. Therefore, serious steps should be taken in the appointment and training of the school principals. In this context, expert members who can evaluate the knowledge level of the candidates and make the most appropriate comparisons between the candidates should be included in the oral exam commissions selecting the school principals well as the senior managers. In order to ensure a transparent and objective assessment, video and audio recordings should be taken in oral exams. On the other hand, psycho-technical tests should be used together with expert members to analyze the personality of the candidate and to have an opinion about the behaviors he will exhibit in the future based on his current behaviors. Today, in the developed countries, school principalship is seen as a professional profession that includes the training of the candidates who are gradually selected. The training must be taken before they start their work and during the work period. For this reason, professional development of the principal candidates to be selected in an objective, transparent and merit-based system should be ensured through postgraduate education. In addition, inspections should be carried out to evaluate the school principals' performances in the context of their leadership behaviors.

In addition, the teacher perception of the school principals working in different types of schools such as primary and/or secondary schools, together with high schools in other provinces and regions, can be examined by making use of the "Dark Leadership Scale" developed within the scope of the study. Qualitative studies can be designed on the causes and consequences of dark leadership behaviors. According to the perceptions of the teachers in terms of gender

variable, male and female school principals' dark leadership behaviors can be examined separately and the findings can be compared. In addition, studies can be conducted to determine the relationships between dark leadership and the variables such as job satisfaction, motivation, burnout, organizational commitment, organizational citizenship, and organizational cynicism.

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