



## Research paper

Challenges to preparing teachers to instruct all students in inclusive classrooms<sup>☆</sup>Rosalinda J. Larios<sup>a,\*</sup>, Andrea Zetlin<sup>b</sup><sup>a</sup> Department of Special Education, California State University, Fullerton, USA<sup>b</sup> Department of Special Education and Counseling, California State University, Los Angeles, USA

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## ABSTRACT

Educating all children in inclusive settings requires proper support and guidance. Effective training has the potential to give teachers at every stage of their career the ability to influence student thinking and increase all students' educational development. Utilizing a convergent mixed methods design, the current study explores the impact of university and district-led professional development aimed to develop the skills and willingness of teachers to create a more inclusive learning environment. Findings from two focus groups and a survey completed by 74 participants, suggest that in order to impact skills and perceptions university-district partnerships would benefit from employing the seven elements for effective professional development presented by the Learning Policy Institute (LPI).

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Efforts to advance inclusive practices will continue to be thwarted if there is not a more concerted effort to build teacher capacity at every stage of their professional career. [Esposito et al. \(2018\)](#) noted that increasing numbers of school districts across the nation are attempting to educate students with disabilities in a general education setting with their non-disabled peers to the maximum extent possible. In these inclusive settings, teachers are expected to instruct and support students with a diverse range of needs ([Varcoe & Boyle, 2014](#)). The California Commission on Teacher Credentialing (CTC) defines "all children" as students who may exhibit a wide range of learning and behavioral characteristics, including disabilities, dyslexia, intellectual or academic advancement, and differences based on ethnicity, race, socioeconomic status, gender, gender identity, sexual orientation, language, religion, and/or geographic origin ([CTC, 2016, p. 4](#)). For the purpose of this present study, when we refer to all students, we are employing

the definition set forth by the CTC. Nonetheless, the idea of educating all children in inclusive settings without proper support and guidance does not sit well with researchers, family members, and educators alike ([Waitoller & Kozleski, 2013](#)). [Slee \(2018\)](#) argued that placing students with disabilities, in particular, without the appropriate structural changes such as organization, curriculum, and learning strategies is not enough and does not constitute inclusion (p. 47). After conducting an extensive literature review on professional development research for inclusive education, [Waitoller and Artiles \(2013\)](#) stressed that if given effective training, teachers are in a unique position to influence student thinking and increase all students' intellectual development. That said, two critical factors must be taken into account when considering how to effectively implement inclusion. One is a teacher's capacity and willingness to address the diverse needs of their students. The other is the potential disconnection between different generations of teachers - veteran and novice - concerning the expectation that students with special education needs (SEN)<sup>1</sup> have the right to be educated alongside their non-SEN peers ([Van Miegheem et al.,](#)

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<sup>1</sup> For the purpose of this paper and taking into account an international readership, we use special education needs in lieu of students with disabilities, a descriptor that is more widely used in the United State of America.

2020).

Inclusive education has been defined by United Nations Educational, Scientific and Cultural Organization (UNESCO) as “a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education” (Anderson et al., 2014, p.3). In 2006, the United Nations ratified the Convention on the Rights of Persons with Disabilities (CRPD) (United Nations Treaty Collection, n. d.). However, as Slee (2018) noted, inclusion must involve more than placement of students with disabilities in mainstream classes. Ultimately, there needs to be accompanying structural changes (i.e., organization, curriculum and teaching and learning strategies), otherwise, it is not inclusion. Recently, Zwane and Malale (2018) conducted a qualitative study in Swaziland to identify the barriers in the implementation of inclusive education. They found that there is a continued need for an inclusive curriculum along with in-service and pre-service training for teachers to increase their capacity to teach in inclusive classrooms (Zwane & Malale, 2018). Earlier studies related to teachers' perspectives have suggested that inclusion of SEN in general education is only accepted by teachers in theory (Naraian, 2014; Tiwari et al., 2015). In the United States of America (US) which has not yet signed the ratified CRPD, Dudley-Marling and Burns (2014) argued there were two dominant perspectives held by educators regarding inclusive education. The first has been described as a deficit position or medical model because students are said to be lacking skills and/or the ability to successfully thrive in school. The second perspective is a social constructivist perspective that is grounded in the notion that the onus of the disability does not rest with the student and structural reform should take precedence over remediation. In other words, the social constructivist perspective suggests that there are socio-cultural factors that mediate a students' success in school. Further exploration of how teachers, who are already in the field, are equipped to teach all students as well as their willingness to implement inclusive education are warranted as studies in this area are scarce.

## 1. Effective professional development (PD) and teaching models

In education, as in other fields, professional development and classroom instruction occurs in various forms. The Learning Policy Institute (LPI) is a nonprofit and nonpartisan organization in the US. The overarching goal of LPI is to create a stronger and more equitable education system. In 2017, they presented the field with seven elements for effective professional development (Darling-Hammond et al., 2017). The seven components are: (a) is content focused, (b) incorporates active learning, (c) supports collaboration, (d) uses models of effective practice, (e) provides coaching and expert support, (f) offers feedback and reflection, and (g) is of sustained duration. Bates and Morgan (2018) stressed the importance of integrating these seven elements into PDs but noted that while any of the components could stand alone, they recommend that the elements be clustered together (Bates & Morgan, 2018). These recommendations are straightforward, albeit, what they look like in practice warrants further exploration.

### 1.1. Collaboration

Over the years, and with the movement towards inclusive education, it has become apparent that working in silos is problematic (Blanton et al., 2018). To improve the quality of instruction, collaboration across grade levels and teacher licensures is becoming more readily acceptable and even encouraged (Gomez-Najarro, 2020). Collaboration can take form in a myriad of ways.

It is encouraged at every level and has been found to benefit all involved, hence the saying the whole is greater than the sum of its parts. Nonetheless, collaboration without aim or structure could create unnecessary tension and be counterproductive. Collaboration should therefore be thought out, intentional, and the aim(s) should be articulated to all involved. In the US, the field is evolving from teaching in isolation (Zhao, 2018) to being more collaborative so that all children are able to learn in the same setting (Sailor, 2021). Thus, we need to explore how to best engage teachers in effective collaboration with co-teachers and related service professionals across their teaching trajectory.

### 1.2. Professional learning communities

In response to the Covid pandemic, collaboration in the form of professional learning communities (PLCs) has been encouraged (Rosenberg & Anderson, 2021). PLCs are described as a practice that does not solely focus on individual teacher learning but on professional learning within the context of a cohesive group. The primary focus is on collective knowledge and features an ethic of interpersonal caring (Walton et al., 2014, p. 321). After conducting a study that was inclusive of special education and general education teachers across six different school districts, Rosenberg and Anderson recommend at least 90 min per week for this collegial sharing and exchange of content (Rosenberg & Anderson, 2021).

### 1.3. Co-teaching

An effective practice and instructional model that should not be overlooked is collaborative teaching, particularly between special and general educators (e.g. co-teaching). Teachers who have a shared knowledge of the processes involved with assessment and progress monitoring have been found to have more positive student outcomes (Murawski & Hughes, 2021; Sailor et al., 2021). Researchers reported that collaborative teaching, also described as team teaching and co-teaching, is a beneficial and effective teaching strategy for inclusion (Sailor et al., 2021; Zhao, 2018). Co-teaching has been said to have positive outcomes for all educators who are tasked with meeting the diverse needs of students with individualized education programs (IEPs) (Sailor et al., 2021). PLCs and co-teaching in concert with the recommendations from LPI have the potential to address the demands of teaching in an inclusive setting.

This present study unravels the complexities associated with inclusive education by describing how this yearlong intervention served to expand teaching practices and shift the school climate to create a more collaborative school culture around the goal of inclusion.<sup>2</sup> Two research questions guided the current study: (1) How is inclusion-focused PD related to working with diverse learners, perceived by teachers? (2) What do teachers who participated in a series of PD workshops consider to be the most effective components to developing their inclusive practices?

## 2. Method

### 2.1. Project design

During the 2016–2017 school year, representatives from a public urban university and school district formed a partnership team to identify local schools for a joint project. The team included varied expertise - school district representatives from the special

<sup>2</sup> The findings in this study were originally reported in the first author's dissertation (Larios, 2020).

education program who brought classroom experience and school-site awareness and special education faculty from the university who brought evidence-based structural and research awareness. Together they would provide in-service support to increase classroom teachers' instructional capacity and the schools, in turn, would serve as fieldwork sites for student teachers pursuing licenses to teach in kindergarten through 6th grade general education and special education settings. After several months of extensive dialog and planning, these stakeholders, from both organizations developed the procedures for data collection, intervention, and decision making. Three elementary schools were identified as potential sites for the intervention. The three principals were contacted and agreed to distribute a needs assessment survey during the next regularly scheduled faculty meeting to determine teachers' interests for PD workshops. This was beneficial because all teachers (who were required to attend the meeting) could give input into the content to be the focus of the PD as well as assent to participate in the workshops.

The needs assessments survey identified four topics of interest by the teachers. Two topics, differentiated instruction (DI) and Co-teaching were selected by all three schools and were presented at the first and last of the PD series. DI means tailoring instruction to meet individual needs including differentiating content, process, products, and/or the learning environment (Tomlinson, 2000). Co-teaching, as described above, involves several delivery models for special education and general education teachers to share responsibility for planning, organizing, and instructing an inclusive group of students in the same classroom (Cook & Friend, 2017; Murawski & Hughes, 2021). Additionally, two of the schools were interested in learning more about Schoolwide Positive Behavior Support (SWPBS), and the third school identified Universal Design for Learning (UDL). Both topics were covered more extensively over sessions two and three at each school respectively. SWPBS is a framework for maximizing the selection and use of prevention and intervention practices within a 3-tiered system that support the academic, social, emotional, and behavioral competence of all students (Lane et al., 2015). UDL is the planning and delivery of curriculum and instruction to ensure that all students have the ability to access the content in ways that work best by removing barriers to learning and including choice assignments, flexible workspaces, graphic organizers, and augmented communication devices (Meyer et al., 2014).

The data presented here represent one component of a larger study that was conducted to investigate teachers' capacity and willingness to (1) build inclusive teaching skills and (2) mentor student teachers during fieldwork practice. Within the larger study, over the course of two school years, we conducted interviews, two focus groups, pre and post surveys, and four interactive professional development (PD) workshops. Data collection and analysis for the larger project was on-going and reported back to the teachers at the start of each of the four PD workshops. This report focused on responses of site administrators and participant teachers regarding their perceptions of the effectiveness of the PD workshops on teachers' classroom and collaborative practices regarding inclusion. The following section describes the participants, data collection and analysis utilized to understand the influence that the PD workshops had on their daily practices and perceptions.

## 2.2. Participants

### 2.2.1. University

The university engaged in this partnership was located in an urban area of Southern California in which they work with over 80 local school districts. They prepare teacher candidates to earn a

variety of California teaching licenses including elementary and secondary general education and special education credentials. In California, preparation for these licenses include a common set of teaching competencies as well as specialized competencies unique to each particular credential. The university was invested in this partnership because they were seeking ways to better prepare their student teachers by having them work in settings in which inclusive practices such as UDL and SWPBS were effectively modeled.

### 2.2.2. Administrators

The three site administrators had more than five years of experience and were quite eager to get involved. The principal at School A was receptive to the vision that the partnership team brought to the table. She had instituted the *Leader in Me*<sup>3</sup> program with all of the teachers and was confident that her team would rise to the occasion. The principal at School B was selected because she was already promoting inclusive practices at her school. She worked closely with all the teachers and would sometimes either co-teach with teachers or model lessons for them. Although the principal at School C was in her first year of principalship at that particular school, she had already begun to encourage her teachers to work with student teachers. Additionally, as an alumna of the university and a former special education teacher she was excited to collaborate with the partnership team.

### 2.2.3. Teachers

In the larger study, there were a total of 77 teacher participants across the three schools. Of those 77, 74 completed the pre (i.e., needs assessment) and post surveys and participated in the PD workshops. Nine of them were selected to complete teacher interviews. As described in Table 1, the average number of years teaching for each site was over 20 years. Across the three schools, there were only seven teachers who had been teaching at their school site for less than five years.

## 2.3. Participating schools

### 2.3.1. Elementary schools

Three local elementary schools, all within five miles of one another and with similar student demographics participated in this project. All of the schools involved had a majority Latinx student population and were all part of a local Initiative promoted by the university to develop a pathway for college and career success initiative aimed at promoting greater academic outcomes for all students (see Table 2). Each of the schools varied in size, with the smallest school having 381 students and the largest having 728. According to the California Department of Education website, during the 2018–2019 academic school year, over 80% of the

**Table 1**  
Teachers experience and area of expertise.

	School A K-5	School B K-6	School C K-5
Total Number of Teachers	34	20	23
Average Years of Experience	22 years	23 years	25 years
General Education Teachers	78.1%	75%	78.3%
Special Education Teachers	21.9%	25%	21.7%

<sup>3</sup> *Leader in Me* is a research-validated program intended to address the social emotional needs, college and career readiness, and development of school-wide leadership skills from students to faculty and staff (Leader in Me, 2021).

**Table 2**  
Students by racial composition.

Ethnicity	School A	School B	School C
Total Number of Students	728	381	420
African American	—	1.0%	0.7%
American Indian	—	—	—
Asian	—	3.1%	0.5%
Filipino	—	0.3%	—
Hispanic or Latinx	99.3%	95.3%	96%
Pacific Islander	—	—	—
White	0.7%	—	2.9%
Two or More Races	—	—	—
Not Reported	—	0.3%	—

students were socioeconomically disadvantaged (see Table 3).

2.4. Data sources

The data employed for this current study were collected as part of the larger project and used to answer our research questions. At the conclusion of the fourth and final PD training, all teachers and administrators were invited to participate in a post-survey. Additionally, each principal invited a select group of teachers to participate in an after school focus group at one of the three school sites. According to Creswell and Plano Clark (2018) a convergent design is ideal for collecting and analyzing quantitative and qualitative data within a mixed methods study and merging the data to identify relationships between the two data sets. These two data sources were analyzed to evaluate perceptions and effectiveness of the PD workshops as well as capture the educators' change of practice. The following section describes the post survey and focus group.

2.4.1. Post survey

At the conclusion of the final professional development, all of the teachers in attendance were asked to complete a Qualtrics' online survey with 34 questions using a 5-point Likert scale. A total of 74 participants across the three schools responded to the post survey using their smartphones or laptops which took approximately 15–20 min to complete. Three teachers were absent from the PD when the post survey was administered.

The complete post survey included eight sections that had emerged from the needs' assessment which sought to learn more about the experiences of the teachers as well as their perceived instructional strengths and areas for growth. This post survey included questions related to the following topics: (1) teacher demographics (i.e., years of experience and their current school site), (2) experiences with students with SENs, (3) familiarity with co-teaching, (4) familiarity with UDL, (5) familiarity with SWPBS programs, (6) familiarity with emergent bilingual support programs, (7) familiarity with individualized strategies for students with IEPs, and (8) reflections on training. For example, teachers, using a response range of 1 (not at all successful) to 4 (I do not have

**Table 3**  
Students by subgroups.

	School A K-5	School B K-6	School C K-5
Total Number of Students	728	381	420
Socioeconomically Disadvantaged	97%	87%	93%
English Learners	38%	10.5%	33%
Foster Youth	0.8%	0.79%	0.48%
Special Education Needs (SENs)	14%	12%	16.6%
Homeless Youth	1.3%	4%	4.7%

experience in supporting this group of learners), were asked, "During the times that students with disabilities are included in general education classes, how successful do you consider your current instructional model in meeting their academic and social needs?"

2.4.2. Focus groups

To allow participants the space to openly engage in dialog, two separate focus groups were conducted after the final PD workshop. School Administrators, who also participated in the PDs, were part of one focus group and teachers from the three schools were participants in the other focus group. Present at the Administrator focus group were two principals from Schools A and B and one assistant principal from School C. A total of nine teachers, three from each school participated in the Teacher focus group. They were all veteran teachers with the exception of one special education teacher who was in her first year of teaching. The teachers were paid overtime by the district Division of Special Education for their participation. The questions for both focus groups were developed by the partnership team. Administrators were asked to evaluate their teachers' willingness to collaborate, meet the needs of all of their students, and gauge the types of support and structures that the school had in place to teach all students. Teachers were asked questions related to the PD workshops they had participated in with the team, the types of strategies the teachers found most effective, and where they turned to for additional support. Each focus group was facilitated by three members of the partnership team, one university and two district partners. The sessions were held at the same time in different meeting rooms in School A. Each focus group session lasted approximately an hour and a half and was tape recorded. Team members also took copious notes to document speakers, perceived attitudes, non-verbal behaviors during the focus groups. After the focus group sessions, both the audio and notes were transcribed and stored on a password secured computer (for a list of questions please contact the first author).

2.5. Data analysis

The post survey and focus group data allowed the partnership team and other stakeholders to investigate the effectiveness of the professional development workshops as well as their future directions (Miles et al., 2014). In alignment with the steps recommended by Creswell and Plano Clark (2018), the quantitative and qualitative data were concurrently analyzed and then merged together to compare, contrast, and synthesize the results. These data were used to understand contextual factors that could potentially influence teachers' ability to meet the needs of all the students in their classrooms (Fetters et al., 2013).

2.5.1. Post survey

We analyzed a series of survey questions to gain a general sense of teachers' perceptions of the professional development they had received. We used SPSS to determine the mean, median and standard deviation of all teachers' combined responses. Two of the survey questions asked: (1) how teachers felt supporting students with disabilities and (2) how the training affected their level of preparation to work with diverse learners and collaborate with colleagues.

2.5.2. Focus group

To assess the components of professional development that most effectively shape a teachers' sense of self-efficacy we drew upon the focus group data. For this, we utilized evaluation coding, which has been described by Saldaña (2016) and Miles et al. (2014)

as a method that allows one to assign judgements about the merit, worth, or significance of programs or policy. This coding strategy was employed to gain better insight into the types of support teachers need to increase their sense of self-efficacy in teaching diverse learners. Using an excel spreadsheet, we coded and charted the responses to create a table of the key responses. Once the responses were put into categories, they were organized into a histogram chart to illustrate the strategies teachers found most helpful throughout the professional development workshops. Additionally, we asked teachers which strategies presented during the PD workshops were most helpful to their practice. We inserted their responses into Word It Out, an online tool that creates a word cloud based on the inserted text to determine which aspects of the professional development resonated with the teachers.

### 3. Findings

The following two sections describe teachers' responses to survey questions of PD impact on practice and teacher input during the focus group. The findings from the post-survey are reported in [Tables 4 and 5](#), which report the number of responses and percentages for each question. When teachers were asked how successful their current instructional model was with meeting the needs of the larger group of diverse learners, 60.5% reported that they felt moderately successful (see [Table 4](#)). More specifically, when they were asked about working with particular subgroups of diverse students, more felt very prepared working with students who were culturally and linguistically diverse compared to approximately 50% who felt only somewhat prepared working with students with Autism, Physical Impairments or Intellectual Disabilities (see [Table 5](#)).

Focus group data revealed the strengths and challenges that teachers and administrators reported throughout the workshops. In both focus groups, we heard scenarios about individual students, collaboration between teachers and support providers, student grouping, and specific instructional and management strategies. Teachers openly shared their thoughts, feelings, and perceptions about how the PD workshops had impacted their practice and what they felt they still needed. Using plus and minus signs to denote positive and negative comments made, as suggested by [Miles et al. \(2014\)](#), we were able to understand teachers' feelings in relation to having professional development.

The following findings demonstrate the teachers' positive and negative feelings regarding the content and organization of the PDs as they related to inclusive practices and working with diverse learners. There were three emerging themes. The first two themes support research question one, which explored how interactive professional development is perceived by teachers and administrators as it relates to inclusion focused on working with diverse learners. The third emerging theme illustrates what teachers who had participated in the workshops perceived were the most effective components to developing their inclusive practices when working with diverse learners.

**Table 4**  
Current instructional model in meeting diverse learners academic and social needs.

Level of Success	Academic Needs		Social Needs	
	N	Percent	N	Percent
Not at all Successful	1	1.3	—	—
Moderately Successful	46	60.5	42	55.3
Very Successful	22	28.9	22	28.9
N/A I do not have experience supporting this group of learners	6	7.9	5	6.6

Note. Participants did not respond to all of the options, so the N varies between academic and social needs.

### 3.1. Perceived positive aspects of the PDs

Teachers and administrators who participated in the focus groups were concerned with the progress of students from both general and special education. Teachers were asked questions such as: *Which practices that were discussed during our PDs did you find most useful?* PROBE: *What is something you would like to learn more about in the future?* Administrators were asked *Are you able to see evidence of what was covered in the PDs being implemented in the classrooms?* PROBE: *Please describe what you've observed?* Two positive recurring sub themes were prevalent, communication and collaboration as well as the acknowledgment of shared responsibility.

#### 3.1.1. Communication and collaboration

The topic that most commonly surfaced was the ability to engage in dialog about best practice and addressing students' needs. Both communication and collaboration were frequently mentioned by the principals and teachers alike. For example, Lexi, a general education teacher noted, *"Anytime you get to collaborate it is an opportunity for learning ....It's like having a mentor. We gain so much more when the special education teachers are included in the full group."* Mona, another general education teacher added that by working together with special education teachers they were able to gain access to more resources. She shared, *"Everyone has a lot of resources. PLCs are the only time we get to share ideas."* Time for sharing ideas was echoed in both focus groups. As noted in [Table 7](#), at the conclusion of the PD workshops, the teachers who completed the survey reported feeling better prepared to collaborate with colleagues who had different areas of expertise.

#### 3.1.2. Shared responsibility

Overwhelmingly, the teachers and administrators agreed that working together across general education and special education credentials had improved their motivation and morale. Sol, a special education teacher, shared that the time to meet with her PLC during the PD workshops gave her the opportunity to not only check in, but to also *"combine ideas."* *"The workshops were kind of like my backbone when I talk to general ed teachers,"* exclaimed Maria. Her comment had evoked a lively discourse. After she shared her thoughts, the group quickly began to chime in with the strategies they had either implemented or changed to help students access the Core Content since the PDs began. This was further validated in the administrator focus group. When they were asked about the cross-credential collaborations that had been transpiring in the workshops, the administrator from School C shared that she was beginning to notice teachers *"moving from I can't, to what are we going to do?"* Although both groups had witnessed growth since the implementation of the workshops, they acknowledged that there continued to be several challenges regarding being able to successfully collaborate and work together. Nonetheless, the sharing of responsibility meant there was more collaborative problem solving which reduced the sense of isolation and

**Table 5**  
Teachers' feelings of preparation when working with particular subgroups of diverse learners.

Descriptor	Culturally and Linguistically Diverse		Students with Autism		Physical Impairments		Intellectual Disabilities	
	N	Percent	N	Percent	N	Percent	N	Percent
Not Prepared	–	–	12	15.8	8	10.5	5	6.6
Somewhat Prepared	29	38.2	40	52.6	47	61.8	41	53.9
Very Prepared	45	59.2	21	27.6	16	21.1	28	36.8
N/A I do not have experience supporting this group of learners	1	1.3	1	1.3	3	3.9	–	–

Note. Participants did not respond to all of the options, so the N varies across descriptors.

inadequacy that some teachers had been feeling.

### 3.2. Emerging challenges

From beginning to the end of the focus groups, the discussions were seen as an opportunity for participants to share obstacles related to their ability to enact what they were being presented with during the professional developments. Time surfaced as one of the biggest challenges. Two other equally important factors that emerged as obstacles were grade level meetings and flexibility. These codes were vital because they shed light on the types of support and professional development that could empower and improve teachers' overall instruction. The most commonly discussed challenges were time, pre-set grade level meetings, and supporting diverse learners.

#### 3.2.1. Time

Teachers and administrators alike noted that time was a barrier. The special education teachers, in particular, felt the pressures associated with time. Rio shared *"I have to hunt teachers down"* Sol added *"we need the time, but we don't have it."* Yet Juliana, another special education teacher, noted *"I could choose which grade level I collaborate with, but I don't have the time to collaborate with them."* The three administrators shared that time was a barrier for their team. When asked to reflect on talking with teachers about professional development or some of the topics that had been presented during the workshops, one administrator openly shared that a barrier was *"time to plan, even for myself."* Another added, *"We don't have that time. Then it's always in between, in the hall, walking from point A to point B. I think that's the challenge."* Time was the overshadowing factor associated with challenges and trickled into other areas of concern such as planning, addressing challenging behaviors, and co-teaching.

#### 3.2.2. Pre-set grade level meetings

A diverging perspective between the administrators and teachers that emerged were grade level meetings. Since time had been an ongoing concern at the school sites, the administrators at two of the three schools shared they instituted more grade level meetings. One shared that *"we have a format to keep them on track."* Whereas, the teachers, on the other hand, felt that the pre-set topics at the grade level meetings often kept them from getting at what they really needed to discuss. Ceci, a general education teacher noted *"the agenda we get is not set in stone but evidence of what we are planning. Sometimes we have areas outside of instruction we need to meet about; grade level needs, field trips."* Unlike Juliana, the special education teacher at School B, who was able to choose which grade level she wanted to collaborate with, Sol, a special teacher from School C, who also taught multiple grade levels shared that she was assigned which grade level to collaborate with during grade level meetings. She openly expressed that she would like to talk to the different teachers about mainstreaming and what it

looks like in every classroom. She shared, *"I heard the general education teachers were not prepared to receive my students. I need more time to collaborate with general education teachers about mainstreaming."*

### 3.3. Supporting learners with diverse needs

Teachers reported that without time for working with colleagues or formal training, an additional ongoing challenge was the ability to support diverse learners. When talking about an experimental primary grade level program at School A, in which students were assigned to teachers based on language arts level of performance and need, Alex, a special education teacher shared that in her experience, *"As soon as the general education teacher feels our kids are too difficult, we get kicked out."* In general, Maria, another special education teacher, shared that the *"school needs to reevaluate how they mainstream. Student groupings are a challenge."* A general education teacher, Ceci, chimed in *"general education teachers need more support for working with behavior needs ... we need more planning time. It's easier with RSP (resource specialist program), SDC (special day class) is not as flexible."* Both RSP and SDC teachers are responsible for students in multiple grade levels. RSP is a pull-out or push-in model in which students with SEN receive more individualized support in the grade-level general education class or in a resource room from the RSP teacher. SDC is a self-contained model with multiple grade levels, students are on the special education teachers' roster and spend limited time with their general education peers. Administrators acknowledged the challenges for teachers to work with diverse learners, however, they all reported that they had seen more understanding about student diversity from the teachers. One administrator reported that as a result of the professional development there was more willingness to be inclusive as well as a better understanding of diverse learners. *"Teachers understand that just because a child has autism it doesn't mean they are all alike."* Later during the conversation, she added, *"the teachers got the opportunity to think about what they are doing in the classroom and what changes can be done."*

### 3.4. Favored PD topics and strategies

Over the course of four PDs, teachers were introduced to a variety of strategies that they could potentially use in their classrooms. As described above, while the first and fourth PD (Differentiated Instruction, Co-Teaching) were the same across the three schools, Schools A and C opted to focus on SWPBS, whereas School B wanted more training on UDL. During the focus group, the administrator from School A shared that she saw more support in place as she walked around. *"For behavior, more things are in place, even for behavior, so they can provide support differentiation for all of the students."* The principal at School C mentioned that since the implementation of the PDs, she saw more willingness on the teachers' behalf to integrate students and modify instruction.

The second PD at Schools A and C included discussion of specific strategies to address individual and whole group classroom management. During the focus group, two teachers from those sites mentioned the strategies introduced in the PDs, such as using token boards and visual schedules with younger students. Rio, a special education teacher shared, “[Her] Student is able to access lessons more often now. All team members are on the same page, using the same routines. [The] Student used to elope (students getting out of their seats) and have meltdowns.” An upper grade special education teacher also mentioned token boards in the open-ended survey question. Token boards are typically a strategy used with individual students, but teachers shared how they could also be used with a class.

Another SWPBS PD outcome that a general education teacher mentioned, was introducing a timer. Timers were being used by multiple teachers to manage small group rotations as well as individual student behavior. Lexi, a general education teacher, reported having “a student that is hyperactive, whole group was not working. I switched to small group instruction. Pulling groups helps the student move around so he can focus when he gets to group. It helps him access the curriculum.” Teachers were eager to share the changes they had made within their classrooms after the PDs. Mona noted that she was “motivated to try new things because it is working for teammates.”

The principal from School B whose PD topic was Universal Design for Learning (UDL), shared during the focus group that even after the partnership team left, UDL was discussed at their staff meetings. She reported, “they were very interested in UDL. We have done a few staff meetings now talking about it. They realized they were already using some of the strategies and didn’t know it.” She reported that the partnership team served to help to “clarify UDL.”

The post survey included a section that asked teachers to reflect on the professional development workshops conducted by the Partnership Team. Table 6 provides an overview of teachers’ perceptions about their level of preparation regarding collaborating with fellow teachers across areas of expertise. Upon completing the four workshops, teachers reported feeling much better (47.4%) or moderately better (38.2%) prepared to collaborate with colleagues who held different credentials. Table 7 depicts that the majority of participating teachers reported feeling somewhat (51.3%) or much more (38.2%) prepared to meet the needs of students after participating in the professional development.

All workshop participants were given the opportunity to respond to an open-ended question that asked *which strategies presented in the professional development training were most helpful to your practice?* Not every participant responded to the question, therefore there were a total of 56 responses out of the 74 teachers who completed the survey. Of those 56, five were more generic comments and were therefore excluded from the total count (e.g., *it was an eye-opening experience*). Fig. 1 shows the number of teachers who identified individual or a combination of strategies, specifically: (a) co-teaching and collaboration, (b) positive behavior support, (c) universal design for learning, (d) co-teaching and collaboration, positive behavior support, and Universal Design for learning, and (e) co-teaching and collaboration, and positive

**Table 6**  
Level of preparation to collaborate with teachers across areas of expertise.

Level of Success	N	Percent
Much Better	36	47.4
Moderately Better	29	38.2
Slightly Better	7	9.2
About the Same	2	2.6

Note. (n = 74).

**Table 7**  
Level of preparation after professional development.

Level of Success	N	Percent
Much More	29	38.2
Somewhat More	39	51.3
About the Same	5	6.6
Somewhat less	1	1.3

Note. (n = 74).

behavior support. Lastly, we developed a word cloud that materialized when the open-ended responses were entered into the Word-It tool. Notably, the four most prominent words were: strategies, behavior, co-teaching, and UDL.

As demonstrated above, the teachers were honest and candid in sharing their experiences and perceptions associated with the types of support and professional development they would like to expand their ability to address the needs of diverse learners. They shared that while they were welcoming of collaboration, co-planning, and even co-teaching, they would also like more autonomy to make important decisions about how to utilize their time during grade level meetings and PLCs. Consequently, they also reported that the need for continuing education to remain current in a space that has intersecting abilities and cultures.

The teachers’ responses to the survey questions coupled with the teacher and principal focus groups demonstrated that teachers were experiencing gains with their students as a result of what they had learned from the PD workshops. Overwhelmingly, 89.5% of teachers reported feeling *much more prepared* or *somewhat more prepared* to meet the needs of students after the PD workshops. Similarly, 85.6% of teachers reported feeling *much better prepared* or *moderately better prepared* to collaborate with fellow teachers across areas of expertise.

## 4. Discussion

### 4.1. Teachers’ needs and wants from partnership

Walton et al. (2014) posited that to work in inclusive settings, in-service workshops alone would not suffice. They recommended systemic support for teachers who are currently in the field as well as better preparation for teacher candidates. Throughout our various conversations with teachers, it became obvious that teachers felt they needed ongoing guidance about how to support diverse learners. Alex’s comment stood out because in her experience, as a special education teacher, a general education teachers’ inability to address challenging behaviors often led to exclusionary practices. Vaughn et al. (2018) suggested that miscommunication coupled with low expectations for diverse learners often leads to more negative interactions which is likely to result in more unwanted student behaviors. What Alex shared was possibly the result of the partnership team not having the resources to integrate ongoing coaching and expert support, one of the seven elements proposed by Darling-Hammond et al. (2017). That said, future partnerships should also integrate coaching and expert support.

More than one aspect of the partnership was fruitful and essential: 1) inviting teachers to select PD content; 2) the newly developed relationships that emerged from PLCs that allowed for collaboration; 3) incorporating active learning; 4) modeling effective practice such as analyzing student work samples; 5) providing opportunities for feedback and reflection; and 6) the overall structure of the PDs. These features played a role in the positive feedback we received from the participants in the focus groups and open ended responses. For example teachers at Schools A and C were presented with two PDs that focused on positive behavior

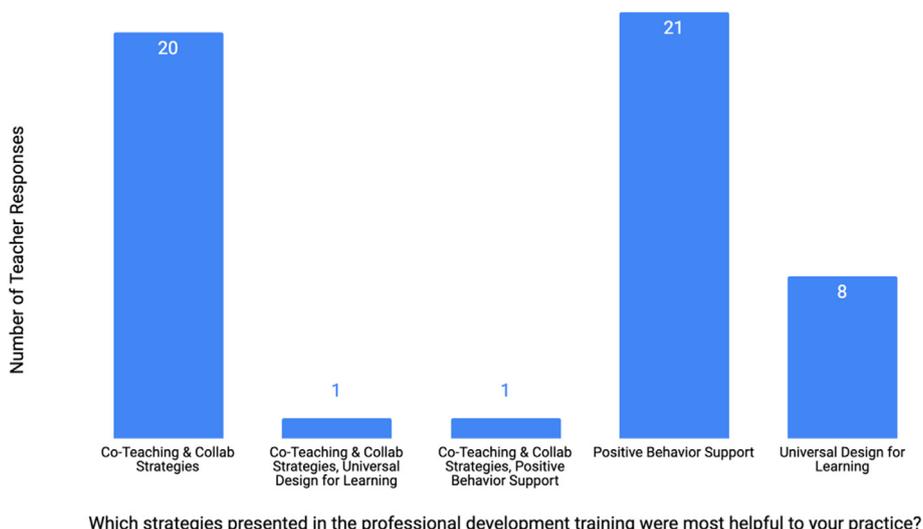


Fig. 1. Helpful strategies presented during the professional development trainings.

intervention support (SWPBS). Lexi, a teacher at School C, shared that adjusting her instructional model improved student behavior. Contrary to Gonzalez et al. (2017) who surveyed teachers across K-12 grade levels, we found that as teacher stress decreased, teacher motivation increased. As teachers shared their accomplishments, their sense of morale and positive statements increased. For example, teachers reported that hearing their colleagues share positive experiences about implementing the strategies presented in the workshops was affirming and motivating. Flores and Day (2006) further validate the need for a positive teaching environment by suggesting that the way contextual, cultural, and biographical factors interact with one another impact teacher praxis. Implementing six of the seven elements from Darling-Hammond et al. (2017), proved to be effective when working with teachers to build their capacity in working with diverse learners.

These findings align with the recommendations made by Waitoller and Artilles (2013) to design and examine PD efforts using an intersectional approach to dismantle barriers to learning. Beyond inviting teachers to select the topics of the PDs, they participated in PLCs to actively contribute and self-reflect on the workshop content. Where there was still room for growth were how administrators allocated planning time and grade level meetings. During the focus group, teachers expressed a desire for more autonomy regarding how they structured and what they focused on during their planning time. They reported that during grade level meetings, they were given specific tasks or forms to complete. Being told how to spend their time did not sit well with teachers. In fact, it contributed to them feeling pressured about how to use their planning time. Interestingly both Thibodeaux et al. (2015) and the Learning Policy Institute (2016) reported that lack of autonomy is a leading factor in teacher attrition. At these particular schools, it was not the grade level meetings that teachers were unhappy about but rather having to focus on pre-set topics that may or may not have been relevant to their immediate needs. Teachers reported that they were especially pleased with the PDs because they were given time to reflect, talk, and share their ideas.

#### 4.2. What teachers gained from the partnership

As demonstrated by Wolfberg et al. (2009) partnerships between districts and universities could help ease the tension teachers experience when trying to meet the needs of all their

students, but in particular their learners with diverse needs. The findings from this study provide evidence that partnerships have the potential to bolster teacher morale as well as build their capacity. An ongoing partnership such as the one in this study began by learning about the teachers' needs. Then by working closely with the principals we learned about the school norms. Taking those steps prior to introducing the four PDs allowed the team to understand the school context as well as build trust with the administrators. While teachers had experience working within their grade level, they had not worked with teachers from other grade levels or across general and special education. After the first PD when teachers were all seated at tables according to their specific grade level, teachers began to interact with colleagues from other grade levels who offered a different perspective on the students. These naturally formed PLCs proved to be an effective strategy for collaborating and seeking support for classroom or student challenges.

During each of the four workshops, teachers were first presented with strategies and given opportunities to talk about what they were currently doing in their classrooms. PLCs provided them with a space to openly collaborate with one another about their students, instructional practices, and concerns. In the present study, the teachers repeatedly expressed their approval of working together. In an open-ended response, a general education teacher reported "I think looking at each other's strengths and weaknesses and observing how we can complement each other is a worthwhile strategy." Although the workshops were developed by the Partnership Team, it was important that we gave teachers the opportunity to highlight their strengths, acknowledging that they are on the frontlines. As outsiders, we could provide the tools and what the strategies should look like, but they were the ones who were implementing the strategies and working with the students. Our job was to get them to revisit their current practice, to identify room for growth, and to explore new ways to engage their students.

As noted during the focus groups, there was one SWPBS activity that made a strong impression in Schools A and C. The teachers were asked to anonymously write about a challenging behavior they were currently experiencing in their classroom. Then, they put their responses in a bag. Later during that same training, they were asked to randomly select a card. We gave them a few minutes to write how they would respond to that particular behavior and then asked them to share with their PLC. Giving them challenges that

their colleagues had written personalized the scenarios. Asking them to not write their name on the cards allowed them to candidly share their concerns or thoughts without feeling judged. Some of the conversations got teachers talking about developmentally appropriate behavior. In their conversations, we heard some of them talk about how they were using or wanted to try a specific strategy to address a challenging behavior. Some even talked about external factors that might need to be considered before they decided the next steps.

The partnership team brought two levels of expertise that teachers could benefit from hearing, which was appreciated by the teachers. A response from a general education teacher to the open-ended question highlighted recognition of the strength of exposure to varied team members' expertise. "Going over various strategies from UDL and the many voices of the facilitation team (Partnership Team) were incredibly helpful." The university knew about the state level expectations as well as evidence based practices, while the district presenters were able to offer insight into the current district practices and resources available to the teachers.

Allowing the teachers to problem solve together and build from their prior knowledge, increased their level of buy in and skills. A general education teacher from School B shared, "most of the strategies were helpful especially on how to try different ones if the ones implemented do not work." In an experiment with teacher candidates, Van Laarhoven et al. (2007) found that the group who were able to practice with students at a clinical site believed that strategies and methods (instructional accommodations) were feasible to implement, whereas the control group, who did not have access to students, did not.

In Australia, Betlem et al. (2019) did a similar inquiry to the present study. Their team contextualized a PD model between a university and school district with mentor-teachers. While the design was similar, they only worked with teachers who were already designated as teacher-mentors. Moreover, their study was done in Australia, not within the context of the United States. Nonetheless, their findings were similar. "A contextualized professional development model can include opportunities for participation in professional sharing and dialog, improved communication, and interpersonal skills, enhanced leadership skills and a sense of professional contribution to the growth and development of others" (Betlem et al., 2019, p. 344).

#### 4.3. Limitations

The primary limitation of this study may be the lack of generalizability of the data. We relied on data from three schools that had a strong leadership team and a dedicated and experienced teaching staff who were willing to explore inclusive education. Another shortcoming was the partnership's limited resources which inhibited the ability to provide coaching, one of the seven elements, to teachers after each PD. In reality, the educational landscape throughout all 50 states may not be conducive to building instructional skills to support the instruction of all students in inclusive settings.

#### 4.4. Implications for research and practice

The lessons from this study could serve as a conceptualization of what veteran teachers need and would like to successfully implement inclusive practices. At the macro level, teachers should be able to earn additional coursework units or a certificate to prepare them for teaching learners with diverse needs. Compensation should be considered for their time, especially if we expect teachers to become skilled at meeting the needs of all students. We need to ensure that teachers understand and can implement the policies

related to compliance and best practice. Additionally, schools need to be more encouraging of collaboration to transform their school culture to be inclusive of all learners.

When considering the types of PD to implement at schools, administrators and teacher educators alike need to allow time for teachers to process the content. They should model and provide opportunities for reflection. If feasible, ongoing coaching should be available to teachers for the purpose of giving them constructive feedback and guidance.

## 5. Conclusion

The current findings suggest that there needs to be a continued shift towards teacher preparation programs and school district personnel working together to (1) develop and implement relevant and interactive PD; as well as (2) collaborate beyond teachers' beginning years to help them remain current in the field. By doing so, we are more likely to build teacher capacity, improve inclusive practices, and shift teacher perceptions regarding student diversity in public school. These data have highlighted some of the benefits and challenges that teachers encounter when they are given facilitated opportunities to collaborate to develop the skills and attitude toward effectively addressing the needs of all students. They also stress the need to give teachers more autonomy in their planning time and more guidance on implementing inclusive practices. Ultimately, when developing a PD model, partnership teams composed of district/school and university personnel should include opportunities for teachers to share their expertise with one another. They should also encourage flexibility during PLCs, embedding the seven elements for effective PDs that were proposed by Darling-Hammond et al. (2017). Doing so will likely encourage leaders to emerge among the teaching staff, creating a space to support their colleagues' development.

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