

Centering the Students: the Cultivation of Mediated Learning Environments

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Abstract: This paper investigates how a professional development program impacts the ways that teachers report providing emotional support in their classrooms and using student-centered teaching practices. We also examine the ways in which shifts in teachers' practices are associated with students' perceptions of their own learning. We examine data from a randomized controlled study in which teachers were randomly assigned to participate in the *dia* program or a waitlist control group. In this analysis, we focus on the qualitative data from the *dia* teachers and student students. We draw on writing and drawing samples, lesson plans, teacher reflections post instruction, and teacher reports in focus groups. We found that as teachers participated in *dia*, they reported providing increased emotional support to students and engaging in more student-centered practices. We also observed evidence in students' descriptions of learning that their perceptions of themselves as learners shifted to embrace a more collaborative model.

Keywords: holistic learning, mediation, student centered approaches, social emotional learning, collaborative learning

Introduction

Latin America's school systems (including that of Mexico--the site of this research) were founded on the principles of cultural liberalism, a philosophy that positions the state as the guiding agent of education and maintains a school system that privileges student conformity and obedience. In this system, "voices could not be raised and students could not move out of line" (Torres, 2009, p. 73). Over time, Mexico has sought to improve public education through systematic reform and policies emphasizing holistic education; however, the Mexican government has struggled to enact changes in educational policy that consistently endure throughout different political administrations (Ábrego, 2009; Laoeza, 2006). Recently, the Secretary of Public Education (SEP) proposed restructuring the national education model, including a curricular proposal focusing on the personal and social development of the student (SEP, 2018). The plan emphasizes three curricular components: Academic Formation Fields; Areas of Personal and Social Development; and Fields of Curriculum Autonomy. The SEP refers to these three components as "*aprendizaje clave para la educación integral*," [key learning for integrated education] (SEP, 2018). Though there is strong support in favor of attending to the social and emotional processes of learners, there continues to be a need for robust programs and pedagogical approaches that demonstrate how to promote holistic learning.

As a model for how to operationalize holistic learning, this article examines a professional development program for educators, Development of Intelligence through Art (*dia*), which provides pedagogical resources to teachers that are designed to promote the holistic learning of both teachers and students. Specifically, we investigate how this professional development program focused on holistic learning and teaching as mediation, impacts the ways that teachers provide emotional support in their classrooms and the extent to which student-centered teaching practices are supported. We also investigate how shifts in teachers' practices are associated with students' perceptions of their own learning.

Theoretical perspectives

In this article, we posit that promoting social and emotional learning and well-being involves the cultivation of robust environments that model and activate social and emotional skills. We take a sociocultural perspective on learning, situating learning in the context in which it transpires (Lave & Wenger, 1991; Rogoff, 1995; Vygotsky, 1978). Learning is facilitated by authentic participation in a community of practice where learners are apprenticed into practice via observation and engagement with their peers, teachers, and environment (Lave & Wenger, 1991). Thus, we argue that the process of learning to recognize, manage, and attend to one's own emotions and social processes involves not only being taught these skills, but also being exposed to an environment with ample

opportunities to engage with skills, such as reflection, observation, and relationship building. As such, the teacher has a critical role in modeling social and emotional competencies and setting up a classroom environment and practices that support students in exploring and cultivating their social and emotional well-being (Morcon, 2014; Schonert-Reichl, Hanson-Peterson, & Hymel, 2015). In our investigation, we emphasize the teacher as the primary unit of analysis, suggesting that when the teacher embodies well-being, students benefit (Greenberg & Jennings, 2009).

Also, our theoretical perspective highlights the reality that students enter into the classroom with extensive knowledge and skills (Moll, Amanti, Neff, & González, 1992). A holistic approach to teaching defines the role of the teacher as one who identifies and activates students' knowledge and extends it in meaningful directions. Doing so requires that teachers have pedagogical expertise to know how to mediate learning experiences for students with diverse abilities. Mediation is a process that supports teachers in navigating the interplay between a set of stimuli and the learner, modifying the engagement with the stimuli based on the learner's individual processes (Tzuriel, 2012; Vygotsky, 1978; Feuerstein, 1979). Through mediation, teachers respond to the processes and experiences of the learner, adapting the instructional materials to expand learners' understandings, facilitating awareness, curiosity, and exploration. This responsive approach supports teachers in expanding their focus to include the holistic learner.

In our analysis, we investigate the ways that teachers' shifting practices inform the classroom environment and affect students' perceptions of themselves as learners. To understand students' perception of themselves as learners, we draw on social semiotics. Knowledge construction emerges through children's multimodal forms of expression, which facilitates meaning-making processes through language and images. A social semiotics framework serves to examine children's drawings as a system of meaning and symbols that children use to depict their knowledge and understandings. The perspective of multimodality aims to broaden the various ways children construct and reveal knowledge (Anning & Ring, 2004; Jewitt & Kress, 2003).

Methods

Desarrollo de la Inteligencia a través del Arte: *dia* (Development of Intelligence through Art: *dia*)

This article focuses on a 32-hour teacher professional development program *dia*. The program was offered weekly for four to eight-hour blocks over the course of eight weeks. The program was developed and delivered by La Vaca Independiente (LVI), an organization in Mexico City that works throughout the Mexican nation in supporting the expansive learning of educators and civil workers. LVI develops methodologies, training programs, and resources that cultivate individual development, build knowledge, and enable pathways for personal, social, and cultural evolution (La Vaca Independiente, 2017). The *dia* program is one of the LVI initiatives aimed at promoting learning and skill development using art as a pedagogical tool. The objective of *dia* is "to create a learning space in which oral expression, participation, and collective construction of knowledge are fostered to promote the integral development of language and thinking skills, as well as social-emotional skills" (La Vaca Independiente, 2017).

The methodology of *dia* program creates a participatory space for listening and collective reflection both in the teacher training sessions and in the classroom with students. The aim of the methodology is for the teacher to shift from being a transmitter of knowledge to a mediator of learning. The pedagogy is oriented around observing, listening, expressing ideas, and engaging in collective meaning making, all of which support synthesis of ideas, vocabulary development, communication, and empathy. *dia* incorporates five fundamental domains into its pedagogical approach (Madrazo Garcia, 2018): (1) physical: recognize the somatic experience; (2) mental: know, think, understand and give meaning to the world; (3) communicative: activate and use language in creative and constructive ways; (4) affective: express and manage emotions; (5) social: build harmonious relationships with others and the environment. LVI provided teachers with artwork, a pedagogical text, student workbooks, 12 lesson plans, books to support lessons, and teacher workbooks.

Study design

Teachers were randomly assigned to participate in the *dia* program or to a waitlist control group (WLC). This article focuses on change over time within the *dia* group using teacher and student data relevant to our interest in emotional support, student-centered approaches, engagement, and preferences.

Participants

Teachers who consented to participate in the study were randomly assigned to *dia* (N = 30) or a WLC group (N = 33). Teachers from schools with the lowest results on standardized performance scores, which are located in neighborhoods that are identified as having highly vulnerable socioeconomic conditions, were invited to participate in this study. Participants were 4th, 5th, or 6th grade teachers, who had never taken *dia* or an alternate social and emotional training in the past. Participants were majority female (>95%) and had been teaching for an average of 10-16 years. From the *dia* teachers' classrooms, 39 student workbooks were selected to analyze.

Measures

To understand change over time, we collected teachers' illustrations that depicted a representation of how they perceived themselves in the classroom. Prior to taking the *dia* training and upon completion of the training, teachers responded to the drawing prompt: "Draw yourself as a teacher in this classroom." To support their representations, teachers also were asked to provide a written response to the prompt: "Describe yourself as a teacher in this classroom." Also, to understand teachers' perceptions, we held three focus groups at the end of the 32-hour professional development, with a total of 18 teachers who attended the *dia* training. Teachers kept workbooks, where they planned their lessons and reflected on the lessons after implementation, and 25 teacher workbooks were collected.

In order to examine the extent to which the *dia* program impacted student learning, we examined the students' workbooks at three timepoints (prompts 1-3). The first response was collected before the *dia* lessons were implemented. The second prompt was collected after the completion of the *dia* lessons, approximately eight weeks after the first prompt. The third prompt was collected at the end of the year about six months after teachers implemented the *dia* lessons. Table 1 summarizes the prompts students were asked to complete.

Table 1: Classroom and Learning Prompts

Workbooks	Time Point	Prompts
Prompt 1	Beginning of DIA workbook before lessons were implemented	<p><u>Drawing Instructions</u></p> <ol style="list-style-type: none"> 1. What area of the classroom are you normally in? Where do you sit? How are the desks arranged? (draw yourself there) 2. What is close to you? Who is close to you? Where are your classmates? 3. What materials do you usually work with? (draw them) 4. When it's time to work, who do you work with? Do you work alone or with your classmates? 5. When you are in your classroom, where is your teacher? What are they doing? 6. What sounds do you hear? What do you see? How do you feel? <p><u>Writing Instructions</u></p> <ol style="list-style-type: none"> 1. What emotions do you feel when you are in your classroom? 2. What has been easy to learn? What has been difficult? 3. How do you learn best? 4. What have you done with what you learn in school?
Prompt 2	End of DIA workbook after all lessons were implemented	<p><u>Drawing Instructions</u></p> <ol style="list-style-type: none"> 1. What area of the classroom are you normally in? Where do you sit? How are the desks arranged? (draw yourself there) 2. What is close to you? Who is close to you? Where are your classmates? 3. What materials do you usually work with? (draw them) 4. When it's time to work, who do you work with? Do you work alone or with your classmates? 5. When you are in your classroom, where is your teacher? What are they doing? 6. What sounds do you hear? What do you see? How do you feel? <p><u>Writing Instructions</u></p> <ol style="list-style-type: none"> 1. What emotions do you feel when you are in your classroom? 2. What has been easy to learn? What has been difficult? 3. How do you learn best? 4. What have you done with what you learn in school?

Prompt 3	Supplementary workbook collected at the end of the school year, 6 months after DIA lessons	<p><u>Drawing Instructions</u> Draw yourself in the classroom. Take into consideration the following questions: Where do you sit? Who do you work with? What materials do you use? Where is your teacher? How do you feel in the classroom?</p> <p><u>Writing Instructions</u> Now, write something to describe yourself in the classroom, considering what you included in your drawing and adding more details. Take into consideration the following questions: What emotions do you feel when you are in your classroom? What have you learned that has been easy? What has been difficult to learn? How do you learn best? How can you apply what you learn to your life?</p>
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Teachers were asked to emphasize to students that these reflections would not be graded and that the purpose was to get to know students better *as students*, an area in which they are the experts. Students were asked to draw first and include as many details as possible. Then students were asked to write, reflecting on their drawing and the additional questions in the prompt.

Analysis

Drawings, writings, focus groups, and workbooks were coded using both an iterative deductive and an inductive approach. Deductive codes were developed based on key constructs of holistic learning, including emotional support and student-centered approaches. Deductive codes are thus focused on identifying ideational, social, and material resources. Following a grounded approach (Charmaz, 2006), inductive codes were developed reviewing the data and identifying emergent themes. Three people independently reviewed the data to identify common themes, coders then agreed upon common themes and synthesized them with deductively identified themes. Coders established theme saturation and established reliability, ensuring that they were not leaving out important constructs present in the data.

Findings

Emotional support

In analysis of endpoint writing and focus groups, teachers discussed a focus on the emotional quality of the classroom with high frequency. In writing tasks, teachers described the how their instruction expanded to focus on the affective dimension of learning. They shared how they intended to continue focusing on these skills beyond that implementation of *dia*;

“Deseo seguir fomentando en mis alumnos la práctica de los valores, la buena respiración, observación atenta, escucha activa, empatía, solidaridad, trabajo en equipo, responsabilidad y compromiso.” (dia, Endpoint writing, 2018)

[I wish to continue developing in my students the practice of values, of good breathing, attentive observation, active listening, empathy, solidarity, team work, responsibility, and commitment.]

This commitment was similarly reflected in *dia* teachers’ lesson planning and reflection notebooks (n=25). Teachers detailed a focus on students’ social and emotional learning 112 times over the course of 8 lessons.

Student-centered approaches

We found that from baseline to endpoint, *dia* teachers shifted away from describing the role of the teacher as authoritarian. At baseline, 63% of *dia* teachers described authoritarian and teacher-centered practices. By endpoint, when responding to the same prompt, only 15% of *dia* teachers cited authoritarian and teacher-centered practices. Teachers moved away from teacher-centered pedagogical approaches by the end of the *dia* training.

We also observed differences over time in the ways that the teachers described their physical space and their role in the classroom. Teachers were asked to visually respond to “draw yourself as a teacher in the classroom.” Prior to the *dia* training, 20 of the *dia* teachers depicted the desks lined in rows, with the teacher at the front of the classroom, and only 8 depicted a physical set up oriented around collaboration and student sharing. Their writing reflected this, with one teacher sharing: *“Están sentados en filas, lo que me permite tener un orden y poderlos ver con mayor facilidad tanto su cara como lo que tienen en su mesa”* [they are sitting in rows, as this allows me to keep order and be able to see them all easily, both their faces and what they have on their desks]

(*dia*, Baseline writing sample, 2018). At endpoint, the number of teachers drawing student-centered classrooms more than doubled, with 18 teachers depicting a student-centered classroom. Teachers drew desks in small groups, where students were facing each other, they drew students sitting on the floor engaging with each other, they drew the teacher as a part of the community, as opposed to at the front, removed from the students. As one teacher explained: “yo siempre al frente explicando pocas veces caminaba entre ellos; por el tiempo. Ahora camino más entre ellos me siento en alguna silla desocupada y los observo trabajar o bromeo con ellos” [Before, I was always in front explaining, I rarely walked among them at that time. Now, I walk among them more, I sit in some unoccupied chair and watch them work or joke with them] (*dia*, Endpoint writing, 2018).

Student engagement

As teachers reported shifting away from teacher-centered practices, they described noticing a similar shift in how students participate: “los niños también se escuchan un poco más entre ellos, con esta dinámica del respeto” [the children also listen a little more among themselves, with this dynamic of respect] (*dia*, Focus group 3, 2019). Another teacher echoed this, sharing that:

“Estas estrategias [de dia] apoyan de que niño fluya, de que niño se exprese, finalmente hace que las clases en las otras materias sean más agradables. Y que el niño se sienta escuchado, y con todo el grupo y de manera individual. Entonces es lo que, eso es la que venía estrategias y... me estoy llevando muchísimo.” (*dia*, Focus group 1, 2018)

[These strategies [from *dia*] support the child’s flow, where the child is expressed, and finally the strategies make the other classes more pleasant. And the child feels heard, with the whole group and individually. And thus, these are the things that have come from these strategies... I’m taking away a lot.]

In the *dia* teacher workbooks’ reflections on lessons, *dia* teachers reflected on students demonstrating improved engagement or motivation 116 times, with 23 of the 25 the teacher workbooks mentioning improved student engagement being a result of the *dia* pedagogy. As teachers described more student-centered classrooms, they also described moving away from overly standardized approaches to instruction so as to best meet the needs of individual students:

“A mi me benefició mucho el programa y dia allí lo que llevamos a cabo, y tuve muchas experiencias bonitas, porque con una simple lámina todo lo podíamos explotar, ¿no? Ahora si nosotros vemos los contenidos, buscamos material que pues no nada más nuestro trabajo queda adentro del aula, sino fuera. Y sí a mi me ha costado trabajo, porque tengo que buscar a material para un niño, para otro, porque todos son diferentes, ¿no? Entonces también aprendí a no prejuzgarlas, o etiquetarlos como lo están haciendo todos, ¿no?” (*dia*, Focus group 3, 2019)

[The program really benefited me and *dia* what we carried out there... I had many beautiful experiences, because with a simple poster we were able to accomplish so much, right? Now when we see the contents [of the school curriculum], and we look for material to enrich the curriculum because our work is no longer only inside the classroom, it is outside as well. And it takes more work, because I have to look for material for one child, for another, because everyone is different, right? So I also learned not to prejudge them, or label them as everyone does.]

Teachers also reported exploring their autonomy within their own classrooms, identifying the tools that they need:

“Como docente me emociona observar las caras de satisfacción cuando mis alumnos adquieren un nuevo aprendizaje y ello me motiva a seguir buscando estrategias, actividades novedosas o cursos que me den herramientas para poder seguir apoyándolos.” (*dia*, Endpoint writing, 2018)

[As a teacher I am excited to observe the satisfaction on my students’ faces when they acquire a new learning and this motivates me to keep looking for strategies, novel activities or courses that give me tools to be able to continue supporting them.]

Students' learning preferences

Students' preferences of learning approaches shifted from the first prompt from more isolated approaches, such as independent work and silent settings, toward more collaborative approaches, such as team work and interaction with peers, in the second and third prompts. When asked to describe how they learn best, students often mentioned 1) configuration (alone, pairs, group) and/or 2) approaches (playing, listening, talking). The first prompt, given before the *dia* lessons, included more responses that indicated students' learning preferences to be individually and in silence, for example, students responded:

"Aprendo mejor sola y en silencio."
[I learn best alone and in silence]

"Yo aprendo si me explican y asi aprendo solo y en silencio."
[I learn if they explain it and then I learn alone and in silence.]

"Solo, por que no me desconsentran. En silencio, para no atrasarme por estar hablando o jugando."
[Alone, because they don't distract me. In silence, so that I don't get behind for talking or playing]

In the second example, the student describes the learning process as someone explaining the content first, then learning taking place alone and in silence. This description is aligned with traditional teacher-centered methods in which the teacher imparts knowledge onto the students as recipients, who subsequently continue their learning individually and in silence. In the third example, the student not only mentions silence as their only preference when learning, but also perceives talking and playing as distractions and a challenge in their learning process. This response also characterizes talk and play as undesirable and mutually exclusive with learning; that is, if there is talk or play, learning is not occurring.

The frequency of both of these types of responses regarding preference of learning alone and in silence decreased in the second and third prompt. Interestingly, when students did mention preferences to be individual and/or in silence, they were accompanied by additional approaches and/or configurations. That is, whereas earlier responses did not include other approaches, later responses mentioned individual and silent settings as existing among a variety of approaches and settings, for example, students shared that:

"A mi me gusta aprender en silencio pero jugando con material."
[I like to learn in silence but playing with material.]

"A mi me gusta aprender en silencio, solo, con material."
[I like to learn in silence, alone, with material.]

"Trabajando con amigos y la maestra. En silencio y tranquilos."
[Working with friends and the teacher. In silence and calmly.]

Responses in the second and third prompt showed a wider range of approaches and configurations, and although some responses still included silence and individually as preferences, these were often mentioned among a list of varied approaches. The following examples shows these changes in one student across time.

Beginning of *dia*:

"Cuando estoy en silencio trabajar mejor."
[When I am in silence I work better.]

End of *dia*:

"Aprendimos a ser más observadores y en silencio a participar más y a contar mejor historias y a respetarnos y a ser mejores dibujantes."
[We learned to be more observant, and in silence, to participate more, and to retell stories better and to respect each other and to be better drawers.]

6 months follow-up:

"compañerismo, prestar atención, estudiar"
[collegiality, paying attention, studying]

This sequence of responses show a common pattern in students' responses across time. It begins by mentioning preferences of solitude and silence, then shifts toward mentioning a wide variety of approaches, which sometimes still included preferences of individual work and silence, although less often. Also, silence in this example is used to describe a reflective and observational state. The mention of *compañerismo* [collegiality/friendship] or peers as an important resource for learning also increased in the second and third prompts. When looking at differences between prompt two and three, we noted that silence as a preference decreased (it decreased generally across the three prompts). The preference of working alone decreased from prompt one to two, then slightly increased in prompt three; however, when silence was mentioned, it was among varied preferences instead of as a sole preference, as it was mentioned in the first prompt.

Discussion

The *dia* program draws on mediation to conceptualize the process of learning. Through the concept of artifact-mediated action (Vygotsky, 1978, p. 40), we observed the ways in which the *dia* tools mediated teacher learning so as to support teachers' shifting practices, becoming more attentive to emotion, and applying student-centered approaches. Students enter into classrooms with rich funds of knowledge (González, Moll, & Amanti, 2005), including knowledge of social interaction and emotional awareness. This study highlights ways in which social and emotional wellness amongst students can be promoted through modeling and making space for students to enact their social and emotional competencies rather than didactic teaching of skills. As teachers model practices of self-reflection, stress management, and emotional support, simultaneously fostering a community of learners, students' understandings of these skills expand, shifting the culture of the classroom, as well as opening up their own learning.

This research study responds to the need and increasing desire for evidence-based educational programs that include attention to the development of mediation and holistic learning approaches in Mexico as well as within a global setting. This work has important implications for considering how to develop professional learning programs oriented around students within diverse national and international contexts of teaching and learning. Findings indicate that shifting teaching practices impact the experiences of teachers and the ways in which students view themselves as learners. This research suggests that mediation, as exemplified in the *dia* model, promotes a learning environment that attends to student centered processes.

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