

Metaphorical Perceptions of Special Education Teacher Candidates Regarding Family Involvement and Parenting in Special Education

Özel Eğitim Öğretmen Adaylarının Aile Katılımına ve Ebeveynliğe İlişkin Metaforik Algıları

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Abstract

The importance of family involvement in supporting the development and education of children receiving special education services is frequently emphasized. In this context, family involvement in the educational process plays a vital role in helping individuals with special needs achieve their goals, strengthen communication and support school–family collaboration. This study aimed to examine special education teacher candidates' perceptions of “family involvement” and “being a parent of an individual with special needs” through metaphors. A qualitative metaphor analysis design was employed to systematically uncover participants' latent perceptions and implicit mental models through structured linguistic analogies. The study group consisted of 38 students enrolled in the special education teacher education program at a large university during the 2024–2025 academic year. Data were collected through semi-structured metaphor forms and analyzed using content analysis. The findings revealed that, whereas 1st-year candidates perceived family involvement as an emotional need and parenting as a “burden/captivity,” 4th-year candidates viewed family involvement as a structural necessity and parenting as a process of “expertise and guidance.” These cohort differences suggest a potential influence of undergraduate education on candidates' professional identity development and their perspectives on the family–school ecosystem.

Keywords: *Special education, family involvement, teacher candidates, metaphor analysis, parenting.*

Öz

Özel eğitim hizmetlerinden yararlanan çocukların gelişim ve eğitimlerinin desteklenmesinde aile katılımının önemi sıklıkla vurgulanmaktadır. Bu bağlamda, ailelerin eğitim sürecine katılımı; özel gereksinimli bireylerin hedeflerine ulaşmalarına yardımcı olma, iletişimi güçlendirme ve okul-aile iş birliğini destekleme açısından önemli bir rol oynamaktadır. Bu araştırmada, özel eğitim öğretmen adaylarının “aile katılımına” ve “özel gereksinimli bir bireyin ebeveyni olmaya” ilişkin algılarının metaforlar aracılığıyla incelenmesi amaçlanmıştır. Katılımcıların örtük algılarını ve zihinsel modellerini yapılandırılmış dilsel benzetmeler yoluyla sistematik olarak ortaya çıkarmak amacıyla nitel metafor analizi deseni kullanılmıştır. Araştırmanın çalışma grubunu, 2024–2025 akademik yılında büyük bir üniversitenin özel eğitim öğretmenliği programına kayıtlı 38 öğrenci oluşturmuştur. Veriler yarı yapılandırılmış metafor formları aracılığıyla toplanmış ve içerik analizi kullanılarak çözümlenmiştir. Bulgular, birinci sınıf öğretmen adaylarının aile katılımını duygusal bir gereksinim, ebeveynliği ise “yük/tutsaklık” olarak algıladıklarını; dördüncü sınıf öğretmen adaylarının ise aile katılımını yapısal bir gereklilik, ebeveynliği de “uzmanlık ve rehberlik” süreci olarak değerlendirdiklerini göstermiştir. Gruplar arasında belirlenen bu farklılıklar, lisans eğitiminin öğretmen adaylarının mesleki kimlik gelişimleri ve aile-okul ekosistemine ilişkin bakış açıları üzerinde olası bir etkisinin bulunduğu işaret etmektedir.

Anahtar Sözcükler: *Özel eğitim, aile katılımı, öğretmen adayları, metafor analizi, ebeveynlik.*

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Metaphorical Perceptions of Special Education Teacher Candidates Regarding Family Involvement and Parenting in Special Education

Special education is an intricate and multidimensional field designed to meet the unique learning requirements and developmental trajectories of individuals with diverse needs. Within this ecosystem, family involvement is viewed not merely as an optional support mechanism but as a critical facilitator for the efficacy of any intervention program. The nature of the family-school partnership directly affects the generalization of skills and children's emotional well-being. To contextualize the participants' perceptions within this study, it is essential to define the core phenomenon: "parenting in special education" is conceptualized not merely as a biological or caregiving status, but as a continuous process of educational advocacy, psychological resilience, and systemic navigation required to support a child with developmental differences.

Theoretical Foundations of Family Involvement

The conceptualization of family involvement in special education is deeply rooted in Bronfenbrenner's ecological systems theory. Bronfenbrenner (1979) posits that a child's development is influenced by multiple nested systems, with the "microsystem" (family and school) being the most immediate. The "mesosystem" represents the interactions between these microsystems—specifically, the school-family partnership. When these two worlds are aligned, the child's learning is reinforced across settings; however, when they are disconnected, the child often experiences developmental fragmentation (Atkinson, 2017).

Complementing this, Epstein (2001) identified six types of involvement—parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community—providing a framework for comprehensive school-family partnerships. Research spanning several decades has consistently shown that when families are actively engaged, children exhibit improved academic performance, social adjustment, and behavioral regulation (Shepard & Rose, 1995; Goldman & Burke, 2017). In contemporary special education, family involvement is no longer viewed as an optional support mechanism but as a technical prerequisite for the efficacy of any intervention program.

Professional Identity Formation in Undergraduate Education

The attitudes and beliefs that teachers carry into the classroom are not formed in a vacuum; they are deeply rooted in their undergraduate education. Pierangelo and Giuliani (2008) suggest that the formation of professional identity in special education is a developmental process. During these formative years, teacher candidates build mental schemas about what it means to be a "professional" and how to perceive the families they will serve.

Contemporary studies show a strong correlation between a teacher candidate's sense of self-efficacy and their willingness to engage in family collaboration (Gümüşkaya & Yavuz, 2022). If a candidate perceives the family as a "burden" or an "obstacle" to the educational process, this belief will likely manifest as a barrier to inclusive education in their future practice. Conversely, candidates who view the family as a "puzzle piece" or a "bridge" are more likely to foster resilient and effective school-home ecosystems (Cruz-Torres et al., 2020). However, a significant gap remains in the special education literature regarding how teacher candidates' implicit cognitive models of families change in relation to their professional preparation. This study addresses this gap by anchoring the comparison between 1st-year (novice) and 4th-year (pre-service) cohorts within teacher professional development frameworks, thereby linking the comparative analysis directly to training-based and developmental mechanisms. This design enabled the researchers to

examine whether formal coursework and field practicums facilitate a meaningful professional transformation in how candidates integrate Bronfenbrenner's ecological systems. Specifically, the study examined whether candidates transition from a naive, disconnected view of the family as an isolated microsystem in their first year, toward a mature, professionalized understanding of the collaborative mesosystem interactions required for sustainable special education practice in their fourth year.

Metaphor Analysis: Unlocking Implicit Beliefs

Examining a teacher candidate's beliefs requires methodologies that extend beyond direct questioning. Traditional surveys often elicit socially desirable answers rather than reflecting deep-seated attitudes. Metaphor analysis, as a qualitative research tool, offers one approach to addressing this limitation. According to Flick (2018), metaphors allow individuals to externalize their internal "phenomenological" world by describing a complex phenomenon through a symbolic lens.

In the field of special education, a metaphor like "Family involvement is a compass" reveals an underlying belief in the family's role as a guiding force. On the other hand, a metaphor like "It is a mountain to climb" might reflect a perception of difficulty and exhaustion. By analyzing these linguistic constructs, researchers can identify the "latent beliefs" and emotional tones that characterize a teacher candidate's orientation toward family involvement. This study employs a qualitative metaphor analysis design to map these mental models, offering insight into the professional perspectives of future special educators.

Purpose and Significance of the Study

The primary objective of this research is to investigate the metaphorical perceptions of special education teacher candidates regarding "family involvement in special education" and "being the parent of a child with special needs." By comparing candidates in the first and fourth years of study, this research sought to explore how the undergraduate experience shapes—or fails to shape—collaborative mindsets.

Given the social challenges (Dubin et al., 2014), educational complexities (Erturk et al., 2020), and the necessity of lifelong support for individuals with special needs (Bennett et al., 2018), the teacher's perception of the family is a central component of the broader system. This study seeks to provide empirical evidence that can be used to refine teacher preparation curricula, ensuring that future educators are ready to embrace families as indispensable partners in the pursuit of positive outcomes for all children. Specifically, to capture the nuanced perspectives of the participants within a qualitative framework, the study addresses the following exploratory research questions:

1. What are the metaphors and corresponding justifications produced by special education teacher candidates regarding family involvement and parenting?
2. What conceptual themes and shared meanings do candidates construct as they justify their metaphors of family involvement and parenting?
3. How do candidates' metaphorical perceptions differ between the 1st-year and 4th-year cohorts, reflecting their professional orientation during undergraduate education?

Method

This study was situated within the qualitative research paradigm and aimed to explore the deep-seated mental schemas of special education teacher candidates regarding family involvement and the phenomenon of parenting. This section describes the research design, participant characteristics, data collection procedures, analysis techniques, and the steps taken to ensure the trustworthiness of the findings.

Research Design

The study used a qualitative metaphor analysis design, which enabled the researchers to systematically uncover the latent perceptions and implicit mental models of individuals through structured linguistic analogies (Saban, 2008). While initial frameworks considered a phenomenological approach, a metaphor analysis design was considered more epistemologically and conceptually consistent with the study's objective of conceptual categorization and the mapping of frequency distributions, rather than exploring raw, unstructured lived experiences. Metaphors are recognized as powerful cognitive tools that allow individuals to map abstract and complex concepts onto more concrete and familiar images (Tsang et al., 2019). Using this qualitative metaphor framework, the study sought to reveal the semantic depth of the candidates' professional orientations and organize their structural perceptions of the family-school ecosystem (Atkinson, 2017).

Participants and Sampling

The study group was selected using purposive sampling, a method used to select information-rich cohorts that directly align with the developmental and comparative aims of the research (Atkinson, 2017; Perry, 2013). The participants consisted of undergraduate students enrolled in the Special Education Teacher Education program at Izmir Demokrasi University during the spring semester of the 2024–2025 academic year. Participants were recruited by sharing a secure, institutional survey link through the university's online learning management system, ensuring that all eligible students had an equal and uncoerced opportunity to participate voluntarily. A total of 51 candidates initially accessed the platform and participated in the data collection process.

However, to reduce response bias and preserve the analytical integrity of the qualitative data set, the following prespecified exclusion criteria were applied: (1) Third-year students ($n = 2$) were excluded to focus specifically on the developmental contrast between the 1st and 4th years; (2) Participants who failed to provide the required logical justification for their metaphors or entered incomplete data ($n = 9$) were removed. The criteria for this exclusion were strictly objective: responses were discarded only if the "because" section was left entirely blank, merely repeated the metaphor itself without providing explanatory logic, or was unintelligible, thereby preventing valid semantic coding; and (3) One duplicate entry ($n = 1$) was deleted. Consequently, the final analysis was conducted with 38 teacher candidates (first-year students, $n = 18$; fourth-year students, $n = 20$). Demographic variables such as gender, high school background, and personal experience with individuals with special needs were recorded to provide context for the findings. The detailed demographic profile of the participants included in the final analysis is presented in Table 1.

Table 1. Demographic Characteristics of the Participants

Variable	Category	F	%
Grade Level	1st Year	18	47.4
	4th Year	20	52.6
Gender	Female	19	50.0
	Male	19	50.0
High School Type	Anatolian High School	28	73.7
	Vocational / Other	10	26.3
Experience with Special Needs	Yes	14	36.8
	No	24	63.2
Total		38	100

Data Collection Instruments and Procedure

Data were collected through a semi-structured digital form, adhering to the principle of voluntary participation. Following the standard metaphor elicitation protocols found in the literature (Saban, 2008), participants were asked to complete the following prompts:

"Family involvement in special education is like ..., because ..."

"Being a parent of an individual with special needs is like ..., because ..."

As emphasized by Flick (2018), the requirement for a justification (logic) is critical in metaphor research. The "because" component ensures that the metaphor is not a random association but rather reflects of a specific cognitive construct, allowing for accurate categorization during the analysis phase.

Data Analysis

The data were analyzed using content analysis, a technique designed to identify, code, and categorize primary patterns in the data (Perry, 2013). The analysis followed a five-stage process commonly used in metaphor studies (Saban, 2008). During the *naming* stage, all metaphors produced by the participants were listed alphabetically to create a raw data set. During the *sorting (elimination)* stage, each metaphor was reviewed alongside its corresponding text. Responses that lacked a logically aligned explanatory "because" statement were excluded to ensure structural consistency across the data set and reduce coder subjectivity. During the *categorization* stage, the metaphors were grouped into conceptual themes based on their shared characteristics and the perspectives they represented, such as family as a "vital need," "guide," or "obstacle." To establish intercoder reliability and assess data saturation, two researchers independently coded the qualitative data, yielding an initial intercoder agreement rate of 92% based on Miles and Huberman's (1994) formula. Disagreements regarding the categorical or thematic assignment of ambiguous metaphors were resolved through consensus meetings mediated by an independent senior faculty member in special education. Data saturation was monitored throughout the sorting and initial coding stages and was considered to have been reached when the analysis of subsequent responses produced no new conceptual themes or unique metaphorical clusters. Finally, during the quantification stage, frequencies (f) and percentages (%) were calculated for each category and metaphor to facilitate comparisons between grade levels.

To ensure structural clarity and methodological rigor, each participant generated a single metaphor and a corresponding justification per prompt. Consequently, the total frequency within each grade level corresponded exactly to the final analyzed participant count, thereby eliminating overlapping or split categorization across themes. Each individual response was assigned to a single, mutually exclusive conceptual category based strictly on the core pedagogical logic provided in the participant's justification.

Researcher Positionality

In qualitative research, acknowledging the researchers' positionality is essential for establishing reflexivity and transparency (Flick, 2018). The authors served as faculty members and research assistants within the special education department where the data were collected. Although their internal positions provided the researchers deep contextual insight into the undergraduate curriculum and the students' practicum environments, they also presented a potential risk for social desirability bias, as students might have felt compelled to provide pedagogically "correct" or idealized answers to their instructors. To minimize this bias and ensure data authenticity, several safeguards were implemented: (1) data collection was entirely anonymous and conducted via a secure digital platform without recording identifying information; (2) the data were gathered during a period with no active grading or evaluation conflicts; and (3) the qualitative coding process included peer debriefing with an external expert to ensure that the researchers' institutional roles did not distort the interpretation of the students' metaphors.

Trustworthiness

To ensure the credibility of the research, several measures were taken in accordance with qualitative standards (Stenius et al., 2017). First, peer debriefing was utilized, in which the coding process and category labels were reviewed by an external expert in special education. To calculate intercoder reliability, the formula developed by Miles and Huberman (1994) [$\text{Reliability} = \text{Consensus} / (\text{Consensus} + \text{Dissensus}) \times 100$] was applied. The resulting reliability coefficient exceeded 90%, indicating high consistency.

For transferability, the findings were supported by direct quotations from the participants' justifications, providing a "thick description" of the data (Groh-Samberg & Tucci, 2010). Furthermore, the entire research process - from participant selection to data cleaning- was documented transparently to allow for future replication (Carey, 1997).

Ethical Considerations

This study was conducted in accordance with the ethical standards of institutional and national research committees. Ethical approval was formally granted by the Izmir Demokrasi University Social and Human Sciences Scientific Research and Publication Ethics Committee (Decision Date: April 25, 2025; Number: E-35950415-605-94614; Protocol No: 2025-04-35). Before data collection, a digital informed consent form was presented. Participants were explicitly informed that their participation was entirely voluntary, anonymous, and that they retained the right to withdraw at any stage.

Findings

The findings of the study are organized into two primary themes: (1) metaphorical perceptions of family involvement in special education and (2) metaphorical perceptions of being a parent of an individual with special needs. The data are presented through frequency tables followed by qualitative descriptions and direct quotations to illustrate the semantic depth of the participants' views.

Metaphorical Perceptions of Family Involvement

The analysis indicates a developmental shift in perceptions. While first-year candidates define involvement through organic and vitalist imagery, fourth-year candidates move toward structural and systemic metaphors.

Perceptions of First-Year Candidates. As illustrated in Table 2, the metaphors produced by first-year special education teacher candidates are grouped into four primary

conceptual categories. The data suggest that for junior candidates, the family is perceived as an "organic necessity" that sustains the very life of the educational process. The category of "Strengthening Educational Support" in Table 2 highlights the family as a crucial facilitator for success. For instance, Participant P3 explained the "Key" metaphor by stating: "Family involvement is like a key; because without the family's cooperation, the teacher cannot unlock the child's true potential." Similarly, the "Source of Life" category reveals an emotional dependency, as seen in P7's "Breath" metaphor: "It is like breath; because just as a person cannot live without air, special education cannot survive without the family." To distinguish this "Source of Life" category from broader support themes, it is defined strictly by vitalist, absolute survival imagery where education is structurally impossible without the family entity. A unique example within this category is the metaphor of "Istanbul," produced by Participant P12. The candidate contextualized this analogy by stating: *"Family involvement is like Istanbul; it is chaotic, crowded, and utterly exhausting to navigate, yet it is historical, beautiful, and absolutely indispensable to the life of the child."* This demonstrates that even when novice candidates acknowledge the emotional and logistical friction involved in family collaboration, they still code it as a vital, non-negotiable reality.

Table 2. Conceptual Categories of Metaphors for Family Involvement (1st Year)

Category	Metaphors (f)	Total (f)	%
Strengthening Educational Support	Building block (2), Key (2), Bridge (1), Lifeblood (1), Touchstone (1)	7	38.9
Source of Life / Vital Necessity	Breath (1), Watering a flower (1), Everything (1), Istanbul (1)	4	22.2
Challenging Path / Process	Challenging life (1), Mandatory course (1), Heartless body (1), Adventure (1)	4	22.2
Goal Orientation	Connection for idealistic instructors (1), Presentation (2)	3	16.7
Total		18	100.0

Beyond these dominant categories, the "Challenging Path / Process" and "Goal Orientation" clusters in Table 2 also contain metaphors that warrant closer interpretive attention, since they reveal a more ambivalent layer in the novice candidates' mental models. Within the "Challenging Path" category, Participant P9 described family involvement as a "heartless body," explaining that "a school without family involvement is like a body without a heart—it can move on the surface, but it has no real life inside." Although this metaphor was placed under a path/process category because of its sense of educational depletion, its symbolic core resonates strongly with the vitalist imagery (e.g., "breath," "lifeblood") found elsewhere, suggesting that even 1st-year candidates' conceptions of difficulty are saturated with affective and survival-oriented meaning rather than systemic critique. Similarly, within the "Goal Orientation" category, the metaphor of "a connection for idealistic instructors" (P11) reflects a romanticized professional orientation: family involvement is framed not as a routine pedagogical structure but as a privileged channel reserved for highly motivated teachers. Taken together, these less frequent yet conceptually distinctive metaphors deepen the 1st-year profile by showing that novice candidates often oscillate between vitalist dependency and idealized vocational imagery, an interpretive pattern that further sharpens the contrast with the structurally grounded metaphors produced by 4th-year candidates.

Perceptions of Fourth-Year Candidates. The structural shift in metaphors among fourth-year candidates is detailed in Table 3. As candidates approach professional practice, their focus transitions from "life-giving" imagery to metaphors emphasizing the "structural

integrity" and "complementarity" of the special education system. According to the data in Table 3, the "Essential Component" category reflects a more professionalized, systemic understanding. P22 justified the "Building Column" metaphor as follows: "It is like the column of a building; if the family does not sustain the skills we teach at school, the entire educational structure collapses." Furthermore, metaphors in the "Complementarity" category, such as "Hand and Glove" (P15), illustrate a view where the teacher and parent are functional partners working as a single unit.

Table 3. Conceptual Categories of Metaphors for Family Involvement (4th Year)

Category	Metaphors (f)	Total (f)	%
Essential Component	Foundation of a building (1), Skeleton (1), Building block (1), Backbone (1), Table leg (1), Column (1)	6	30.0
Complementarity and Wholeness	Puzzle piece (1), The other half of an apple (1), Hand and glove (1), Completing part of a whole (1), Two sides of a coin (1)	5	25.0
Need and Vital Support	Need for water (3), Watering a flower (1), Rice and beans (1)	5	25.0
Cooperation and Process	Orchestra (2), Performing on stage (1), Bridge (1)	4	20.0
Total		20	100.0

Metaphorical Perceptions of Being a Parent

The second theme of the findings involves the candidates' perceptions of the parental experience. The narrative evolves from a focus on "fragility and burden" in the first year to "strategic agency and resilience" in the fourth year.

Perceptions of First-Year Candidates. Table 4 presents the conceptual categories related to the 1st-year candidates' perceptions of parenting. The distribution shows a heavy emphasis on the emotional weight and the high-stakes responsibility inherent in the role. The dominant category in Table 4, "Exhausting Path," often features metaphors of restriction. Participant P2 described parenting as "Captivity," justifying it by saying: "Because you must sacrifice your own life and be under a constant, heavy responsibility." The "Responsibility" category further emphasizes the fragility of the parent's life, with P18 stating: "It is like carrying an egg in your pocket; you must be incredibly careful every second, or everything will break."

Table 4. Conceptual Categories of Metaphors for Parenting (1st Year)

Category	Metaphors (f)	Total (f)	%
Exhausting and Challenging Path	Caregiver, Captivity, Thorny Road, Endless run	8	44.4
Responsibility and Entrustment	Carrying an egg in a pocket, Glass jar, Trust	6	33.3
Sacrifice and Patience	Journey, Being a candle, Shadow	4	22.2
Total		18	100.0

Perceptions of Fourth-Year Candidates. The evolution toward seeing the parent as a "resilient leader" and "expert guide" in the 4th year is summarized in Table 5. While the challenges are still acknowledged, they are framed through the lens of active management and educational partnership. As shown in Table 5, the "Primary Educator" category reflects a specialized view of the parent's role. Participant P25 used the "Gardener" metaphor to explain: "A parent is a gardener who knows that every child is a different flower requiring specific soil and water; they provide the labor for growth." Additionally, the "Management" category highlights resilience, with P38 employing the "Captain in a Storm" metaphor to describe the parent as a leader navigating educational and social challenges.

Table 5. Conceptual Categories of Metaphors for Parenting (4th Year)

Category	Metaphors (f)	Total (f)	%
Primary Educator and Supporter	Gardener (3), Being a teacher, Guide, Translator	6	30.0
Management and Struggle	Captain in a storm, Climbing a mountain, Miner, Exam	8	40.0
Uniqueness / Difference	An apple on a lemon tree, A precious pen, Robot	6	30.0
Total		20	100.0

Analysis of Negative Cases and Contradictory Data

To ensure qualitative rigor and prevent overgeneralization, it is vital to analyze negative cases within the cohorts that contradict the dominant developmental trajectory. While the vast majority of 4th-year seniors shifted toward empowering, agency-centered narratives (e.g., gardeners and captains), an isolated yet highly significant contradictory perspective emerged. Specifically, Participant P34 characterized being a parent in special education as a "Robot," providing the following extended justification: *"A parent is like a robot because they lose their independent human agency, operating strictly on the programmed commands and technical schedules handed down by teachers and doctors. They do not collaborate; they mechanically execute instructions."* The presence of this "Robot" metaphor serves as a critical negative case, illustrating that undergraduate preparation does not automatically guarantee a collaborative mindset for all candidates. It highlights that undercurrents of parental de-professionalization and mechanistic compliance still persist in the minds of certain senior students, requiring explicit attention in curriculum design.

Discussion

This study showed that the mental schemas of special education teacher candidates regarding "family involvement" and "parenting" differed notably between the early and final stages of their undergraduate education—evolving from an emotional, survival-based foundation to a professional, systemic structure. However, given the cross-sectional nature of this study, it is important to acknowledge that these differences cannot be exclusively attributed to the causal impact of the undergraduate curriculum. Alternative explanations—such as distinct cohort dynamics, general age maturation, or differing prior personal experiences with individuals with special needs—might also contribute to this shift. Nevertheless, the metaphorical findings suggest that the process of professional identity formation involves not only an accumulation of technical knowledge, but a significant paradigm shift in how the family is positioned within the educational ecosystem.

Shifting Perceptions of Family Involvement: From Source to Structure

The first major finding of this study was the difference from perceiving family involvement as an "organic necessity" (e.g., breath, lifeblood) in the 1st year to a "structural requirement" (e.g., foundation, skeleton) in the 4th year. The idealistic and somewhat romanticized metaphors used by first-year students, such as "breath" or "Istanbul," suggest that candidates at the beginning of their training view the family–school partnership as a bond of emotional dependency rather than a coordinated system of interaction.

In contrast, the 4th-year candidates' use of metaphors like the "foundation of a building" or "backbone" suggests greater professional awareness of generalization—the ability of a child to apply skills across different environments. As Participant P22 noted, without the family's support, the "structure" of school-based education is prone to collapse. This aligns with Goldman and Burke's (2017) assertion that families must be viewed as "co-educators." The shift toward functional metaphors like "hand and glove" among

seniors further suggests that the principle of "mutual responsibility," central to Epstein's (2001) model of school-family partnerships, may have been internalized through specialized academic training.

Transformation in the Perception of Parenting: From Burden to Agency

One of the key findings of this study is the conceptual difference in how candidates perceive the lived experience of being a parent of a child with special needs. The 1st-year metaphors—such as "captivity," "caregiver," and "thorny road"—suggest that junior candidates conceptualized parenting primarily as a "heavy emotional burden" and an overwhelming responsibility. This reflects the ethnographic realities described by De Wolfe (2014), where families struggle against social stigma and institutional barriers. At this stage, candidates tend to view the parental role through a burden-focused lens, emphasizing the exhausting nature of caregiving rather than positioning parents as collaborative professional partners.

However, the shift in the 4th year toward metaphors such as "gardener," "captain," and "guide" indicates that this narrative gave way to an emphasis on parental agency and expertise. Siller and Morgan (2018) emphasize that parents possess "expert knowledge" of their child that is vital for the success of any intervention. The "gardener" metaphor (P25) illustrates a sophisticated understanding: the parent is seen as the one who knows the specific "soil and water" (individual needs) required for the child's growth. Furthermore, metaphors like "captain in a storm" (P38) suggest that senior candidates view parents as resilient leaders capable of navigating societal and educational waves, a perspective that fosters a more respectful and empowering teacher-parent relationship (Ozonoff et al., 2014).

Crucially, the continued presence of arduous metaphors among 4th-year candidates—such as "climbing a mountain," "an exam," or "a miner"—demands careful interpretation. Unlike the 1st-year candidates who frame parenting primarily in terms of external restriction and emotional weight (e.g., "captivity"), the senior students reframe this difficulty through professional realism. Having completed field practicums and advanced coursework, 4th-year seniors have witnessed the systemic, bureaucratic, and societal barriers that families face daily. Therefore, their retention of "heavy labor" or "struggle" imagery does not indicate a lack of professionalization; rather, it denotes a transition from naive idealism to grounded reality. They recognize that parenting a child with special needs is objectively demanding, but they view this demand as an arena for parental resilience, expertise, and strategic management rather than mere unfortunate endurance.

The Semantic Transformation of Overlapping Metaphors

An analytical strength of this study lies in examining metaphors that recurred across both grade levels—such as "a bridge" or "watering a flower"—as their justifications reveal a clear developmental transformation. For instance, when a 1st-year candidate describes family involvement as "watering a flower," the justification centers on basic, organic affection and general survival (e.g., "keeping the child alive with love"). Conversely, when a 4th-year senior utilizes the identical "watering a flower" metaphor, the semantic focus shifts entirely to methodical, individualized pedagogy (e.g., "knowing the specific soil and water requirements of each unique child"). Similarly, "the bridge" transitions from an emotional path of hope in the junior year to a technical mechanism for skill generalization and home-school consistency in the senior year. This finding suggests that professional development during undergraduate education does not necessarily replace a student's vocabulary but significantly enriches the structural and pedagogical meaning embedded within those concepts.

Professional Identity and Future Implications

Gümüşkaya and Yavuz (2022) identified a positive correlation between teacher candidates' attitudes toward families and their sense of professional self-efficacy. The findings of this study suggest that as candidates approach graduation, they viewed family involvement as the "backbone" of the system, indicating they are likely to enter the profession with a higher readiness for collaboration. While Gökdağ and Ünlü (2023) have noted that even experienced higher education instructors face challenges in establishing family-school cooperation, the professionalized metaphors of the 4th-year candidates (e.g., "orchestra" or "captain") may reflect the contribution of the undergraduate program in fostering a systemic mindset.

Recommendations

This research illustrates, through the lens of metaphor analysis, how the image of the family in the minds of future special educators transforms from an "emotional weight" into a "strategic partner." Beyond a mere restatement of cohort differences, the critical significance of these findings lies in demonstrating that formal professional preparation may help reconstruct preservice teachers' implicit relational models from a dualistic mindset (where the family is viewed as an isolated problem) to an ecological one (where the family is recognized as a structural necessity). This cognitive evolution is foundational for sustainable inclusive education, as teachers who view families as essential pillars may be less likely to experience professional burnout or exhibit professional gatekeeping behaviors in their future classrooms. Based on these critical evaluations, the following targeted recommendations are proposed.

Undergraduate programs should move beyond purely theoretical instruction on family involvement. The findings showed that junior candidates heavily focus on parental exhaustion; therefore, teacher training curricula should introduce mandatory case-study analyses and structured reflexivity seminars as early as the 1st year. This will help novice candidates reframe initial "burden-focused" perceptions into an objective, systemic understanding of parenting challenges, thereby accelerating the development of a collaborative professional identity.

The "leadership" and "guidance" perceptions developed by 4th-year candidates should be reinforced rather than left as passive beliefs. Teacher preparation programs should mandate active, evaluated participation in Individualized Education Program (IEP) meeting simulations and parent-teacher goal-setting sessions during field practicums. This approach could translate the senior candidates' collaborative mental models (e.g., the "orchestra" or "bridge") into actionable, real-world professional skills.

While the specific cultural and centralized legal frameworks of the Turkish educational context shape these unique cohort profiles, the core conceptual progression may have relevance across national contexts for international teacher preparation programs seeking to dismantle parent-professional divides. Future longitudinal research should track a single cohort from their 1st to 4th year and examine how these metaphorical models actively translate into actual classroom cooperation once candidates enter the workforce as full-time teachers.

Limitations

Although this study provides valuable qualitative insights into the cognitive frameworks of teacher candidates, several methodological constraints must be explicitly acknowledged. First, the data were collected from a single state university in Türkiye, which restricts the immediate transferability of the findings to different institutional or

international cultural contexts. Second, the final analyzed sample size is relatively small, which prevents statistical generalization, though it is typical for qualitative metaphor analysis aiming for deep semantic saturation. Third, the cross-sectional design precludes direct causal conclusions about curriculum impact, meaning cohort variations cannot be entirely ruled out. Finally, relying on metaphor elicitation as an indirect, self-report measure introduces a potential risk of analytic subjectivity during the researchers' coding process, as well as a risk of social desirability bias where senior candidates might provide pedagogically idealized answers rather than their actual implicit beliefs. Future studies should address these constraints by triangulating metaphor analysis with direct observational data or longitudinal interviews during teaching practicums.

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