



## COLLABORATION AS A SOFT SKILL IN SPECIAL EDUCATION TEACHERS: A SYSTEMATIC LITERATURE REVIEW

ASSIMINA TSIBIDAKI & AIKATERINI VRACHNA

Department of Primary Education, University of the Aegean, Greece

Potrjeno/Accepted

31. 3. 2025

Objavljeno/Published

30. 6. 2025

KORSPONDENČNI AVTOR/CORRESPONDING AUTHOR

tsibidaki@aegean.gr

### Abstract/Izvleček

This study explores the role of collaboration as a crucial soft skill for special education teachers (SETs), focusing on its impact on their professional development and teaching practices. Through a qualitative review of 15 studies (2012–2024), findings highlight that, while collaboration enhances inclusive education, challenges persist, including heavy workloads, large class sizes, limited training, and negative attitudes. SETs view collaboration with schools, families, and colleagues as vital to improving both teaching effectiveness and student outcomes. The study underscores the need to integrate collaborative practices into teacher preparation programs to foster professional growth and create more inclusive, supportive learning environments.

### Keywords:

collaboration, soft skill,  
special education  
teachers (SETs),  
systemic literature  
review.

### Sodelovanje kot mehka veščina pri učiteljih specialne pedagogike: sistematični pregled literature

Študija obravnava sodelovanje kot ključno mehko veščino učiteljev specialne pedagogike in analizira njegov vpliv na strokovni razvoj ter pedagoške prakse. Sistematični pregled 15 študij (2012–2024) razkriva, da sodelovanje pomembno prispeva k inkluzivnemu izobraževanju. Kljub temu ostajajo izzivi, kot so preobremenjenost, veliki oddelki, pomanjkanje usposabljanja in negativne naravnosti. Učitelji specialne pedagogike poudarjajo pomen sodelovanja s šolami, družinami in kolegi za izboljšanje učinkovitosti poučevanja, učnih dosežkov ter socialne in čustvene podpore učencem s posebnimi potrebami. V študiji izpostavljamo potrebo po vključevanju sodelovalnih praks v izobraževalne programe učiteljev, da bi spodbudili strokovni razvoj in ustvarili bolj vključujoča, prilagodljiva ter uspešna učna okolja.

### Ključne besede:

sodelovanje, mehke  
veščine, učitelji  
specialne pedagogike,  
sistematični pregled  
literature.

### UDK/UDC:

376.048

DOI <https://doi.org/10.18690/rei.4853>

Besedilo / Text © 2025 Avtor(ji) / The Author(s)

To delo je objavljeno pod licenco Creative Commons CC BY Priznanje avtorstva 4.0

Mednarodna. Uporabnikom je dovoljeno tako nekomercialno kot tudi komercialno reproduciranje, distribuiranje, dajanje v najem, javna priobčitev in predelava avtorskega dela, pod pogojem, da navedejo avtorja izvirnega dela. (<https://creativecommons.org/licenses/by/4.0/>).



## Introduction

Research on teachers' soft skills is a vital and evolving field that has garnered significant attention from experts in recent years (Vasanthakumari, 2019). A crucial soft skill that teachers should develop is collaboration, which is a key social skill. Collaboration involves activities that are collectively planned (Vangrieken et al., 2015). A more recent definition of collaboration describes it as a process of exchange, where individuals share information, materials, or knowledge (Bush and Grotjohann, 2020). Through collaboration, teachers can reflect on and reassess their practices, modify strategies, and work toward improving themselves, their students, and the overall school environment (Giakoumi and Theofilidis, 2012).

Modern education demands an approach centred on collaboration. Teachers must possess the ability to collaborate effectively to fulfil their educational responsibilities. In today's work environment, teamwork is gaining increasing importance and is rapidly becoming the standard in organizations across various sectors (Edmondson, 2013). The educational context is a crucial setting for collaboration, from the perspective of both teachers and students. Teachers have the potential to shape collaborative learning experiences for students by working as a team, while also modelling collaborative skills through their own attitudes and behaviours (Coke, 2005). Collaboration is the style professionals select to employ based on mutual goals, parity, shared responsibility for key decisions, shared accountability for outcomes, shared resources, and the development of trust, respect, and a sense of community (Friend and Cook, 1990, 2010). Collaboration is increasingly acknowledged as a cornerstone of professional development and inclusive education, creating environments where teachers can learn from one another and adapt to the diverse needs of students (Hargreaves and O'Connor, 2018). Educator collaboration aligns with global priorities, including the United Nations Sustainable Development Goal 4, which advocates for inclusive and equitable quality education (UNESCO, 2017).

Collaboration occurs at different levels: sharing represents the lowest level, followed by job sharing, and at the highest level is co-construction, where individuals work together throughout the completion of a project (Bush and Grotjohann, 2020). Despite ongoing efforts to enhance collaboration among teachers, challenges remain because of the deep-rooted norms of teacher autonomy (Johnston and Tsai, 2018). This indicates that effective collaboration requires not only adjustment to individual practices but also a transformation of the broader educational system (Vangrieken et

al., 2015). The same authors observe that while teaching in the past was marked by an individualistic approach, modern pedagogy now emphasizes the importance of collaborative learning. Co-teaching can be defined as the collaboration between a general education teacher and a special education teacher or other specialist to jointly provide instruction to a diverse group of students, including those with disabilities, in a general education setting and in a way that is flexible and purposeful in meeting their learning needs (Friend, 2008). A school environment with high levels of collaboration benefits all stakeholders, particularly students, teachers, and the institution itself, fostering both professionalism and growth (Ifanti et al., 2017). This practice not only enhances the inclusion of students with disabilities in mainstream schools but also serves as a professional learning framework for teachers themselves, as it cultivates skills of collaboration, communication, emotional intelligence and responsibility sharing (Hargreaves and O'Connor, 2018).

Collaboration among teachers is recognized as a key factor in enhancing teaching quality and promoting inclusive education (Hargreaves and O'Connor, 2018). However, education systems vary in their institutional policies, structures, and practices (Vangrieken et al., 2015). For instance, the institutional framework in the United States supports collaboration through co-teaching, particularly in special education (Friend et al., 2010). In terms of teacher education and training in collaboration, both Australia and the United States integrate it into university teacher education programs, albeit with expected variations (Neal et al., 2013).

At the global level, initiatives such as the Sustainable Development Goals (SDGs), particularly Goal 4, promote “equitable and quality education for all” and recognize collaboration as a key element in implementing inclusion (United Nations, 2015). Erasmus programs also support the exchange of best practices among schools and the professional development of teachers (European Commission, 2021). Digital tools can enhance teacher collaboration (Blikstad-Balas and Klette, 2020), while ongoing training in collaborative strategies is essential for ensuring inclusion (Pugach et al., 2014).

SETs and teacher aides, such as paraprofessionals, frequently collaborate to support students with disabilities in both general and special education settings. The diversity found in mainstream classrooms underscores the critical role of collaboration in developing inclusive teaching practices (Ainscow, 2016). Collaborative teaching methods are essential for integrating students with disabilities, ensuring their acceptance and value within the community (Wilson College, 2024).

This partnership allows educators to adjust their instructional strategies to accommodate diverse student needs, thereby promoting equitable and accessible learning opportunities for all (Ghedin and Aquario, 2020).

### *The present study*

Global research often centres on secondary school teachers and students (Onabamiro, 2014). Existing literature highlights the complexity of collaboration in modern schools, involving general education teachers, special education teachers (SETs), and other staff members (Hansen et al., 2014). Research further underscores that collaboration among teaching staff fosters alignment of attitudes and bridges the gap between general and special education (Lyons et al., 2016).

This study seeks to examine how SETs conceptualize the soft skill of collaboration, the ways in which they cultivate this skill, and its role in the educational process and their professional growth. Specifically, the study addresses the following research questions:

- *How do SETs conceptualize the soft skill of collaboration?*
- *How do SETs develop the soft skill of collaboration?*
- *What is the contribution of the soft skill of collaboration to the educational process?*

## **Method**

### *Search strategy*

This study adopted a systematic literature review methodology following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021). A thorough search was performed across various databases, including Science Direct, Heal Link, Google Scholar, ResearchGate, PubMed, Wiley Online Library, ERIC, Taylor & Francis, Elsevier, and the National Documentation Centre. The review targeted academic papers published between 2012 and 2024, aiming to identify research that explores factors facilitating the development of the soft skill of collaboration among SETs.

To enhance precision, a comprehensive set of search terms was designed to address the core elements of the research question: the conceptualization, enhancement, and impact of collaboration in SETs. Keywords included “teacher/s,” “special education

teacher/s,” “soft skill/s,” and “collaboration.” Boolean operators (AND, OR, NOT) were utilized to refine search results effectively. Articles were selected based on these terms appearing in the title, abstract, or keywords. Only peer-reviewed journal articles written in English or Greek were included. Relevance was determined by screening titles, abstracts, and, when necessary, full texts. Additionally, reference lists and citations of key studies were reviewed to identify further relevant research.

### *Selection criteria*

The studies included in this systematic review were chosen based on specific inclusion and exclusion criteria to maintain relevance, quality, and consistency.

- Inclusion criteria: Studies were included if they fulfilled predefined requirements such as language, research design, thematic alignment, and pertinence to the research question.
- Exclusion criteria: Studies were excluded if they failed to meet these requirements, particularly concerning language, methodological approach, or relevance to the research question.

These criteria are detailed in Table 1.

Table 1

*Inclusion and exclusion criteria for publications.*

| <b>Inclusion criteria</b>                                                                                                                                                    | <b>Exclusion criteria</b>                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Published between 2012 and January 2024                                                                                                                                      | Published before 2012                                                                                                                                                            |
| Published in Science Direct, Heal Link, Google Scholar, Research Gate, PubMed, Wiley Online Library, ERIC, Taylor & Francis, Elsevier, and the National Documentation Centre | Not published in Science Direct, Heal Link, Google Scholar, Research Gate, PubMed, Wiley Online Library, ERIC, Taylor & Francis, Elsevier, and the National Documentation Centre |
| Written in English or Greek                                                                                                                                                  | Not written in English or Greek                                                                                                                                                  |
| Published in peer-reviewed journals                                                                                                                                          | Not published in peer-reviewed journals                                                                                                                                          |
| The thematic focus is on the soft skill of collaboration in SETs                                                                                                             | The thematic focus is not on the soft skill of collaboration in SETs                                                                                                             |
| Qualitative, quantitative, or mixed methods                                                                                                                                  | Not qualitative, quantitative, or mixed methods                                                                                                                                  |

*PRISMA Stages*

The review process adhered to the PRISMA guidelines, which involved several stages:

1. Identification (n=160): The initial search resulted in a total of 160 records from the selected databases. After removing 30 duplicate articles, 130 unique records remained for screening.

2. Title screening (n=130): The titles of the remaining 130 articles were reviewed for relevance to the research topic. At this stage, 50 articles were excluded for the following reasons:

1. Irrelevance to the research topic: The article did not focus on the soft skill of collaboration in SETs or its development.
2. Failure to address the research questions: The study did not adequately explore the conceptualization, development, or contribution of collaboration among SETs.
3. Lack of methodological rigor: The study used an approach that did not meet the inclusion criteria, such as lacking appropriate data analysis or relying solely on anecdotal evidence.

The remaining 80 records proceeded to abstract screening.

3, Abstract screening (n=80): The 80 remaining articles were evaluated based on their abstracts. At this stage, 65 articles were excluded for the following reasons:

1. Being off-topic: The study did not focus on collaboration as a soft skill.
2. Lack of focus on collaboration in SETs: The article addressed collaboration in other educational contexts or in general, not specifically in relation to SETs.
3. Language: The article was not published in English or Greek.

The remaining 15 articles proceeded to full-text review.

1. Full-text review (n=15): The full texts of the remaining 15 articles were retrieved and reviewed in detail. These articles were assessed according to the inclusion and exclusion criteria, and no further articles were excluded at this stage.
2. Inclusion (n=15): All 15 studies that met the eligibility criteria were included in the final review. These studies provided valuable insights into the conceptualization, development, and contribution of the soft skill of collaboration among SETs.

The PRISMA flowchart illustrating the full review process is presented in Figure 1:

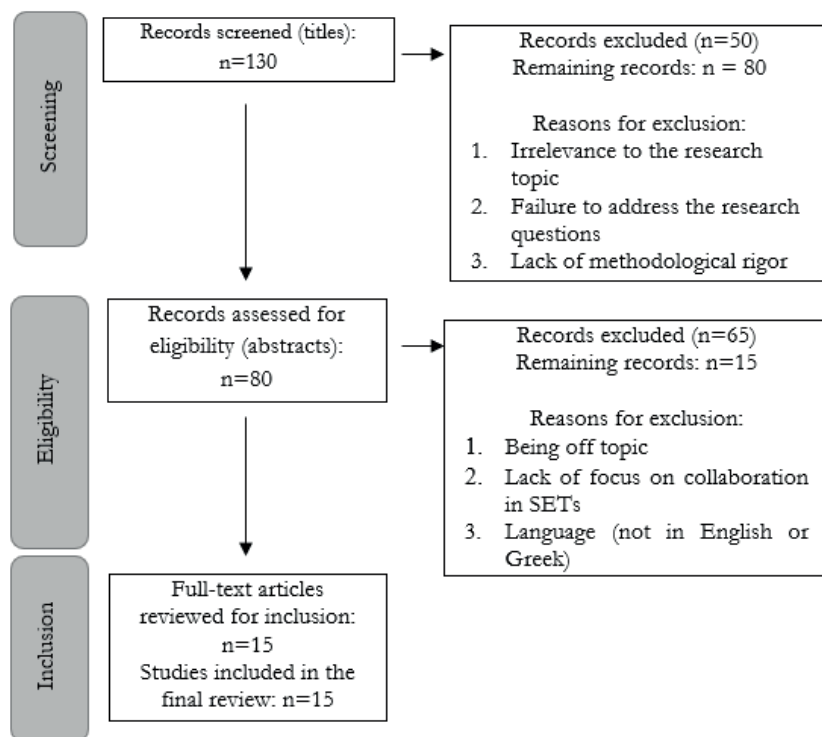


Figure 1

*Review process of articles for inclusion in systematic review (PRISMA flowchart)*

### *Data coding*

The articles were carefully analysed for content related to the soft skill of collaboration among SETs. Thematic analysis was used to identify key themes from the studies' findings (Saunders et al., 2023).

In the first stage, each article was coded line-by-line. In the second stage, descriptive themes were generated to accurately reflect the content of the included studies. The third stage involved developing final analytical themes, which required interpreting the results to uncover deeper insights.

The authors independently analysed the data, extracting relevant information, organizing the codes, and identifying potential themes, achieving a 95% agreement

rate. The identified themes included the conceptualization of collaboration, methods for developing collaboration, its contribution to the educational process, and its role in the professional development of SETs.

Subsequently, the authors reviewed the themes, codes, and key narratives to reach a consensus. The main themes were then organized into tables, which clearly presented the findings along with the relevant percentages. Cohen's kappa was used to measure the agreement and found that the agreement between the raters was 0.70 substantial agreement.

## Results

### *Characteristics of these studies*

A total of 160 articles were initially identified, with 130 remaining after duplicates were removed. Following the review of titles and abstracts, 50 articles were excluded, leaving 80 for further evaluation. After assessing relevance, 65 articles were excluded, resulting in 15 studies being included in the final review. These studies were published in various international journals. The results of the research contain data on the number of studies researched per year (Figure 1), their country of origin (Figure 2), the type (Figure 3), the number of study participants (Figure 4), and the percentage of SET participants in each research sample (Figure 5).

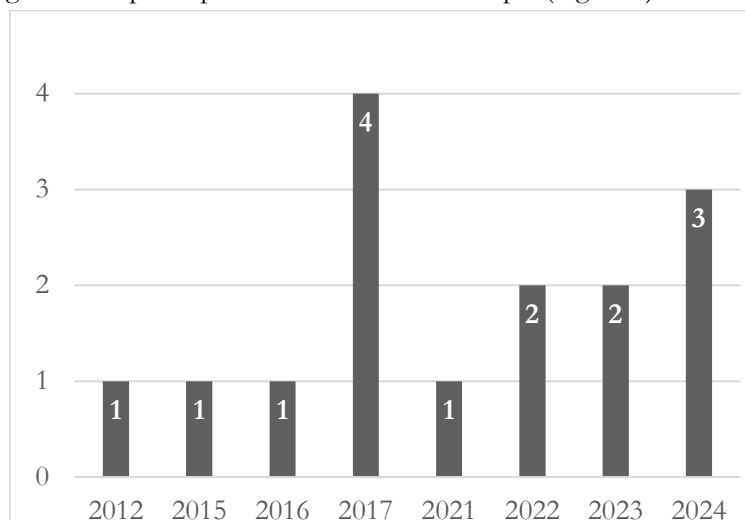


Figure 1  
*Number of studies per year*



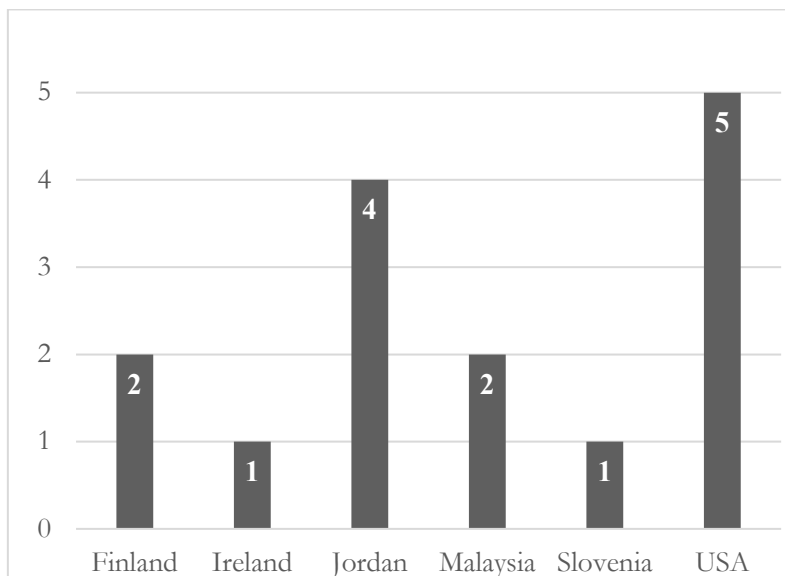


Figure 2  
*Number of studies by country*

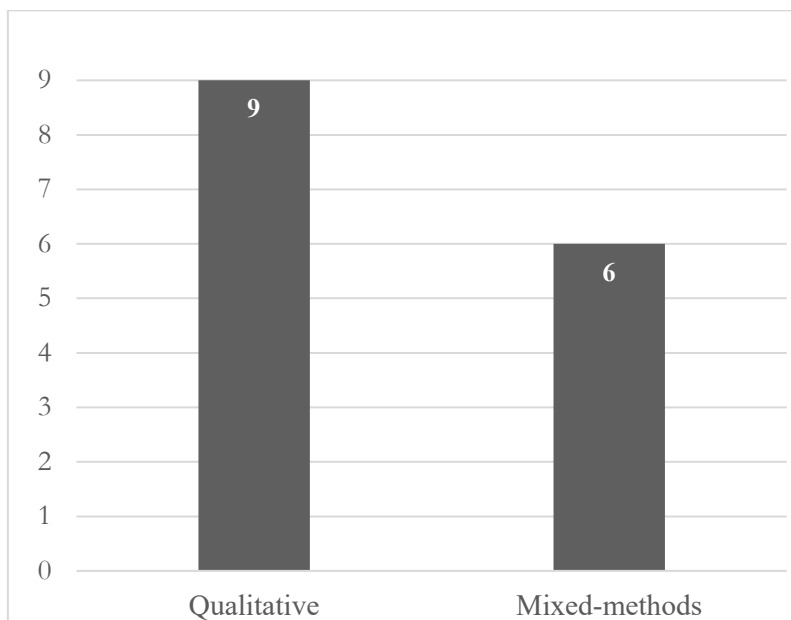


Figure 3  
*Number of studies by type*

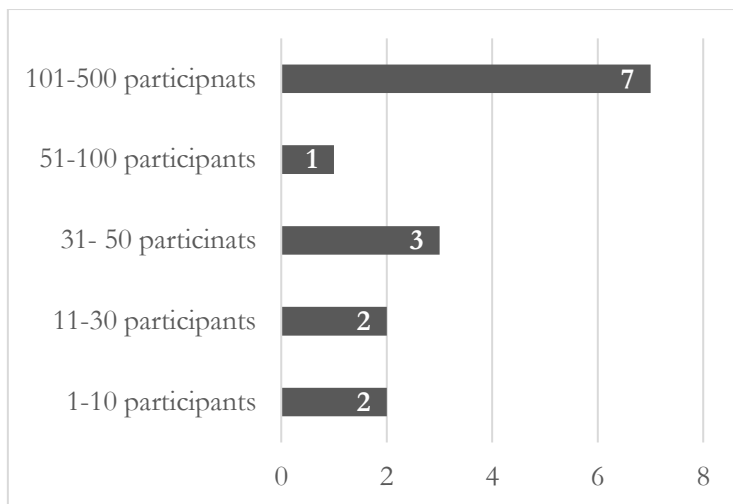


Figure 4. Distribution based on the number of study participants

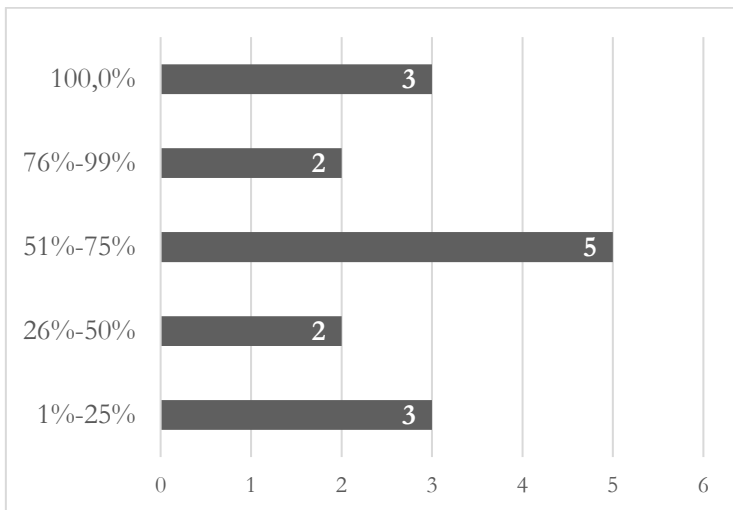


Figure 5

*Distribution based on the percentage of SET participants in each research sample*

A summary of their characteristics, including authors, publication year, country of origin, objectives, research methods, participants, findings, and implications for the educational process, is provided in Table 2.

**Table 2**  
*An overview of the studies and findings of research included in the analysis.*

| Study and country of origin              | Objective of the study                                                                                                                                                  | Research methods, Participants                     | Findings                                                                                                                           | Implications for educational process                                                                                                                                                                                                         |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abu-Alghayth (2024)<br>Jordan            | To investigate teachers' lived experiences of instructional collaboration in mainstream and inclusive education settings.                                               | Qualitative, 6 SETs and 3 general teachers (GETs). | Revealed various factors that influence the successful implementation of this practice.                                            | Strengthening teacher collaboration enhances the educational process by fostering inclusive classrooms that address the diverse needs of all students.                                                                                       |
| Alghazo and Alkhalazleh (2021)<br>Jordan | To identify the level of practicing collaboration between regular and SETs.                                                                                             | Mixed methods, 75 GETs and 60 SETs.                | Collaboration between regular teachers and SETs was moderate, with differences based on education level but no gender differences. | Enhancing professional development programs, promoting inclusive practices, curriculum, and teaching strategies to improve teaching effectiveness and student outcomes.                                                                      |
| Alhossyan (2023)<br>Jordan               | To identify the level of practicing collaboration between regular and SETs. To understand how collaboration between SETs and GETs functions and provide recommendation. | Qualitative/ Systematic review, 17 articles        | Implications for practice and recommendations for future research are presented in addition to the data obtained.                  | Strengthening collaboration between special and general education teachers to enhance professional development, promote inclusive practices, and ensure that educational policies and resources support effective teamwork in the classroom. |
| Al-Natour et al. (2015)<br>Jordan        | To explore the extent of collaboration between GETs and SETs in Jordan.                                                                                                 | Mixed method, 250 SETs and 250 GETs.               | Collaboration is constrained by various factors.                                                                                   | Fostering a more collaborative and inclusive educational environment in Jordan, improving teacher practices and enhancing student experience in mainstream schools.                                                                          |

|                                          |                                                                                                                  |                                         |                                                                                                                                  |                                                                                                                                                                                                                                                      |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Azmah et al. (2017)<br>Malaysia          | To explore how collaboration is conducted and implemented in the Inclusive Special Education Program classrooms. | Qualitative, 441 GETs and SETs.         | The type of collaboration approach that are usually being used is the “collaboration-consultation” approach.                     | Improving the implementation of inclusive education by ensuring that both general and special education teachers are equipped to work together to meet the needs of all students.                                                                    |
| Da Fonte and Barton-Arwood (2017)<br>USA | The perspectives of GETs and preservice SETs candidates.                                                         | Qualitative, 6 future GETs and 20 SETs. | The themes of time, content knowledge, and communication emerged as important to this group of future teachers.                  | Highlighting the importance of fostering collaboration between general and special education teachers to enhance inclusive practices, improve student outcomes, and promote professional development focused on teamwork and co-teaching strategies. |
| Khairuddin et al. (2016)<br>Malaysia     | The perceptions of SETs in Malaysia regarding their interactions with general education teachers.                | Quantitative, 48 SETs and GETs.         | There appeared to be good relations between SETs, but limited collaboration.                                                     | Strengthening inclusive education in Malaysia by enhancing collaboration between general and special education teachers to improve teaching practices and student support.                                                                           |
| Paju et al. (2022)<br>Finland            | To extend the current understanding of collaboration between teaching staff.                                     | Qualitative, 138 GETs and 29 SETs.      | Indicate coordination, cooperation, and reflective communication as modes of collaborative action in the participants’ teaching. | Improving the overall effectiveness of inclusive education by fostering stronger collaborative efforts among teaching staff, ensuring that all students receive the support they need to succeed.                                                    |

|                                     |                                                                                                                                                 |                                                     |                                                                                                                                                |                                                                                                                                                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paloniemi et al. (2023)<br>Finland  | To examine successful and unsuccessful collaboration with the classroom teachers in a tiered support framework.                                 | Qualitative, 238 SETs.                              | The perceived agency of SETs is shaped by classroom teachers' understanding of their shared responsibility for supporting students.            | Enhancing the role of special education teachers in collaborative settings to improve professional development and lead to better educational outcomes for students with diverse learning needs.                      |
| Parker et al. (2012)<br>USA         | To address calls for improving collaborative teacher preparation for students with disabilities.                                                | Qualitative, 21 elementary and 25 pre-service SETs. | Developing an understanding of co-teaching as a complex construct and the role of field experience in shaping perceptions of co-teaching.      | Improving the preparation of future educators to ensure they are equipped to collaborate effectively in inclusive educational settings, ultimately benefiting all students.                                           |
| Ramirez and Lynch (2024)<br>Ireland | To explore teachers' perceptions of teamwork and collaboration in AAC (Augmentative and Alternative Communication) service delivery in Ireland. | Qualitative, 5 SETs.                                | The impact of recent service changes on collaboration was emphasized, with all participants acknowledging the need for improved collaboration. | Enhancing collaboration within AAC teams to ensure special education teachers are well-prepared to support students through service changes, improving educational experiences for students with communication needs. |

|                                  |                                                                                                                                                                                        |                                     |                                                                                                                                                                  |                                                                                                                                                                          |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ricci et al. (2017)<br>USA       | To describe a university-based early fieldwork program where special education licensure candidates taught local urban children, developing their collaboration and co-teaching skills | Mixed method, 57 preservice SETs.   | Highlight the importance of special education teacher preparation programs that explicitly train students in collaboration and co-teaching skills                | Enhancing the preparation of special educators to ensure they are better prepared to work in inclusive classrooms and provide effective support for all students.        |
| Rihter et al. (2024)<br>Slovenia | To investigate how they collaborate with pupils with severe specific learning difficulties and how this collaboration influences their professional development.                       | Qualitative, 83 SETs and 55 GETs.   | Most participating professionals felt that collaboration was necessary.                                                                                          | Fostering a collaborative and inclusive educational environment that benefits both teachers and students, particularly those with severe specific learning difficulties. |
| Vostal et al. (2022)<br>USA      | To investigate how general and SETs perceive trust in their collaborative relationships.                                                                                               | Qualitative, 112 GETs and 24 SETs.  | Teachers who experienced trusting relationships promoted equity between roles and developed norms to support collaboration.                                      | Strengthening collaborative practices between general and special educators to improve the quality of education for students with diverse needs.                         |
| Zagona et al. (2017)<br>USA      | To investigate educators' preparedness for inclusive education.                                                                                                                        | Mixed methods, 10 GETs and 33 SETs. | There was a relationship between educators' preparedness for inclusive education. Provided a deeper understanding of the educators' preparation and experiences. | Contributing to the improvement of inclusive education practices and collaborative outcomes for students with diverse learning needs.                                    |

The articles examined highlight the limited nature of collaboration between SETs and GETs (Al-Natour et al., 2015; Khairuddin et al., 2016; Alghazo and Alkhazaleh, 2021; Alhossyan, 2023). The analysis revealed that SETs primarily associate collaboration with the development of mutual understanding (Parker et al., 2012; Zagona et al., 2017; Paliomeni et al., 2022). SETs also view collaboration as integral to effective teaching and learning (Azmah et al., 2017; Pazu et al., 2022; Rihter et al., 2024). Furthermore, collaboration is seen as encompassing personal relationships and trust (Vostal et al., 2022), as well as key skills such as time management, content knowledge, communication, and conflict resolution (Da Fonte and Barton-Arwood, 2017). Additionally, collaboration is influenced by university programs (Ricci et al., 2017), shaped by various contextual factors (Abu-Alghayth, 2024), and characterized by a multidisciplinary structure and approach (Ramirez and Lynch, 2024).

#### *Ways of developing the soft skill of collaboration*

Our analysis of the articles identified several effective methods for developing collaboration among SETs. Education and professional development programs emerged as the most frequently cited strategies for fostering collaboration (Al-Natour et al., 2015; Khairuddin et al., 2016; Da Fonte and Barton-Arwood, 2017; Ricci et al., 2017; Azmah et al., 2017; Zagona et al., 2017; Alghazo and Alkhazaleh, 2021; Rihter et al., 2024). Additionally, shared daily tasks were highlighted as valuable opportunities for collaboration (Paliomeni et al., 2023; Abu-Alghayth, 2024; Ramirez and Lynch, 2024). Collaborative practices across various educational settings (Pazu et al., 2021) also played a significant role in enhancing collaboration. Furthermore, co-teaching approaches (Parker et al., 2012), trust-building activities (Vostal et al., 2022), and support from school leaders and decision-makers (Alhossyan, 2023) were recognized as key factors in developing collaboration.

#### *Evaluation of the contribution of collaboration to the educational process*

Evaluation of collaboration's contribution to the educational process revealed a variety of perspectives from SETs. Several studies highlighted the crucial role of collaboration in addressing educational challenges (Al-Natour et al., 2015; Da Fonte and Barton-Arwood, 2017; Azmah et al., 2017; Paju et al., 2022; Abu-Alghayth, 2024). Co-teaching emerged as another significant benefit associated with collaboration (Parker et al., 2012; Ricci et al., 2017; Zagona et al., 2017). The positive impact of collaboration was also observed in students' academic performance

(Alhossyan, 2023; Rihter et al., 2024) and in the development of a collaborative school culture (Alghazo and Alkhazaleh, 2021; Ramirez and Lynch, 2024). Furthermore, teacher collaboration was identified as a key driver of educational progress (Khairuddin et al., 2016), fostering trust among educators (Vostal et al., 2022) and promoting the division of labour (Paliomeni et al., 2023).

*Evaluation of collaboration's contribution to the development and progression of special education teachers*

The review of articles on the role of collaboration in the development and progression of SETs revealed a high degree of consistency in the findings. The most frequently cited benefit of collaboration was its positive impact on effective teaching practices (Khairuddin et al., 2016; Da Fonte and Barton-Arwood, 2017; Ricci et al., 2017; Azmah et al., 2017; Alghazo and Alkhazaleh, 2021; Paliomeni et al., 2023). Additional findings highlighted that collaboration also supports teacher preparation (Parker et al., 2012; Al-Natour et al., 2015; Zagona et al., 2017; Paju et al., 2022; Vostal et al., 2022) and fosters the learning of collaborative practices (Alhossyan, 2023; Abu-Alghayth, 2024; Ramirez and Lynch, 2024). Furthermore, collaboration was found to significantly enhance teachers' professional development (Rihter et al., 2024).

## **Discussion**

This study aimed to examine the soft skill of collaboration among SETs. Specifically, it investigated how SETs conceptualize collaboration, the strategies they employ to develop this skill, and its contributions to both the educational process and their professional growth and career progression.

In terms of how SETs conceptualize collaboration, findings indicate that they perceive it as occurring at a limited level. This result aligns with findings from other studies (Boehme, 2020). Additionally, SETs associated collaboration with effective teaching and learning, a perspective consistent with existing literature (Solis et al., 2012; Simon, 2017). Moreover, teachers identified collaboration as being rooted in mutual understanding, a view supported by previous research (Robinson, 2017). Another prevalent perception was the close connection between collaboration, personal relationships, and trust. Indeed, prior studies have demonstrated that trust



is a critical factor in fostering collaboration among teachers (Hallam et al., 2014; Scruggs and Mastropieri, 2017).

Regarding the development of collaboration, most teacher responses emphasized the pivotal role of education and professional development programs in fostering this skill. The significance of enhancing collaboration through such programs has been similarly highlighted in previous research (Pellegrino et al., 2017). Another recurring theme in this study was the value of sharing day-to-day work responsibilities, a finding consistent with earlier studies (Molina and Lopez, 2019). Additionally, teachers who implemented diverse practices and strategies in their educational activities tended to achieve more effective collaboration outcomes. This evidence suggests that programs across varied contexts play a crucial role in cultivating qualified teachers and promoting collaboration (Le et al., 2018).

An important factor identified in the studies reviewed is that collaboration among SETs is often driven by the need to address challenges in the educational process. These findings are consistent with prior research (Nguyen et al., 2022). Moreover, collaboration was recognized as critical to the educational process, particularly within the context of co-teaching. Effective implementation of co-teaching is frequently attributed to the combined impact of school-based and professional development initiatives, supported by organizational structures and resources that facilitate collaboration (Jurkowski et al., 2023). Other recurring themes included progress, and the positive outcomes experienced by students. These findings align with existing literature, which emphasizes that fostering teacher collaboration significantly enhances student outcomes (Ronfeldt et al., 2017). Consistent with other studies, strengthening collaboration within schools is viewed as a key strategy for advancing and evolving the educational process (Ainscow, 2016). A particularly notable finding, especially among SETs, is the connection between collaboration and the development of a supportive school culture. Collaborative cultures are shown to arise from positive working environments and strong relationships among colleagues (Sutton and Shouse, 2016).

The literature review revealed that effective preparation and teaching were outcomes of teachers' collaboration skills. These results align with previous research (DeMonte and Coggshall, 2018; Brown and Poortman, 2018). Additionally, a key element identified by SETs regarding the impact of collaboration on their work was the acquisition of new practices. This finding is consistent with other studies (Hargreaves, 2021).

The literature review revealed that effective teacher preparation and instructional practices are key outcomes of collaboration skills among educators. These findings are consistent with prior research (Brown and Poortman, 2018; DeMonte and Cogshall, 2018). Additionally, a significant aspect identified by SETs regarding the impact of collaboration on their work was the acquisition of new teaching practices. This result aligns with findings from other studies (Hargreaves, 2021).

To overcome the barriers to collaboration, team-based instructional planning is proving effective in reducing working time and improving the quality of teaching (Strogilos et al., 2016). Furthermore, administrative support helps collaboration between teachers and consequently their effectiveness (Shogbesan et al., 2024). An important suggestion for overcoming visual barriers would be to promote collaboration through educational networks and learning communities, which create for teachers to exchange ideas and good practice (Brown and Poortman, 2018).

#### *Contribution to practice*

The growing body of research on teacher collaboration (2012–2024) underscores its critical role in special education. This study highlights the necessity of effective teacher training in collaborative practices and their integration into both instructional methods and the broader school environment. It further emphasizes the importance of considering the diverse contexts that influence collaboration, presenting both challenges and opportunities for future investigation. By fostering teamwork among educators, incorporating collaborative technologies, and establishing professional learning communities, schools can enhance teacher efficacy, improve student outcomes, and cultivate a more inclusive educational landscape. There are still significant gaps in understanding how collaboration can be improved through different structures, policies and technological tools (Vangrieken et al., 2015). Future research could examine the long-term effects of collaborative practices on teacher retention, student engagement, and school-wide improvement. Additionally, studies should investigate the role of emerging technologies in facilitating collaboration. Expanding the range of sources and methodologies in future research will also provide a more comprehensive understanding of teacher collaboration. Long-term studies on the impact of collaboration, policy implementation, technological integration, and cross-cultural comparisons--as well as their role in fostering inclusive education--will provide educators, policymakers,

and researchers with deeper insights into optimizing collaboration for improved teaching and learning outcomes.

The policy implications of cooperation in education include reforming the institutional framework for collaboration between general and special education teachers, reviewing teacher training systems, strengthening resources and funding for collaborative teaching models, and enhancing policies on inclusive education through collaboration.

#### *Limitations of the study*

The study acknowledges several limitations, including the small number of articles reviewed and the focus on specific databases. Therefore, further research is needed to evaluate the effectiveness of this intervention.

### **Conclusions**

This literature review concludes that SETs hold diverse perceptions of collaboration. Although often perceived as peripheral, collaboration is widely recognized as vital for effective teaching. The reviewed studies underscore the role of teacher education programs in developing collaborative skills, with educators acknowledging that collaboration is instrumental in addressing challenges. Furthermore, collaboration enhances teacher preparation, strengthens instructional practices, and increases overall teaching effectiveness.

### **References**

- Abu-Alghayth, K. M. (2024). Understanding teachers' lived experiences of instructional collaboration in inclusive and mainstream settings: A transcendental phenomenological approach. *International Journal of Disability, Development and Education*, 72 (2), 1–18. <https://doi.org/1-0.1080/1034912X.2024.2317484>
- Ainscow, M. (2016). Collaboration as a strategy for promoting equity in education: possibilities and barriers. *Journal of Professional Capital and Community*, 1(2), 159–172 <https://doi.org/10.1108/JPCC-12-2015-0013>
- Alghazo, E. M., and Alkhazaleh, M. S. (2021). Collaboration between special education teachers and regular education teachers: Implications for professional development. *International Journal of Early Childhood Special Education*, 13(1), 35–41. <https://doi.org/10.9756/int-jecse/v13-i1.211005>

- Alhossyan, F. (2023). Collaboration between special and general education teachers: A systematic review. *Information Sciences Letters*, 12(4), 1021–1029. <https://dx.doi.org/10.1857-6/isl-120424>
- Al-Natour, M., Amr, M., Al-Zboon, E., and Alkhamra, H. (2015). Examining collaboration and constrains [sic] on collaboration between special and general education teachers in mainstream schools in Jordan. *International Journal of Special Education*, 30(1), 64–77.
- Azmah, A. L., Azlinda, W. M., and Azrani, A. M. (2017). Collaboration among teachers in inclusive special education program classrooms. *Advanced Science Letters*, 23(9), 8316–8321. <https://doi.org/10.1166/asl.2017.9884>
- Blikstad-Balas, M., and Klette, K. (2020). Still a long way to go: Narrow and transmissive use of technology in the classroom. *Nordic Journal of Digital Literacy*, 15(1), 55–68. <https://doi.org/10.18261/issn.1891-943x-2020-01-05>
- Brown, C., and Poortman, C. (Eds.). (2018). *Networks for Learning: Effective collaboration for teacher, school and system improvement*. Routledge. <https://doi.org/10.4324/9781315276649>
- Bush, A., and Grotjohann, N. (2020). Collaboration in teacher education: A cross-sectional study on future teachers' attitudes towards collaboration, their intentions to collaborate and their performance of collaboration. *Teaching and Teacher Education*, 88, 102968. <https://doi.org/10.1016/j.tate.2019.102968>
- Coke, P. K. (2005). Practicing what we preach: An argument for cooperative learning opportunities for elementary and secondary educators. *Education*, 126(2), 392–398.
- Cook, L., and Friend, M. (2010). The state of the art of collaboration on behalf of students with disabilities. *Journal of Educational and Psychological Consultation*, 20(1), 1–8. <https://doi.org/10.1080/10474410903535398>
- Da Fonte, M. A., and Barton-Arwood, S. M. (2017). Collaboration of general and special education teachers: Perspectives and strategies. *Intervention in School and Clinic*, 53(2), 99–106. <https://doi.org/10.1177/1053451217693370>
- DeMonte, J., and Coggs, J. (2018). *New Collaborations, New Approaches: Research for improvement in teacher preparation*. American Institutes for Research.
- Edmondson, A. C. (2013). *Teaming to Innovate*. John Wiley & Sons.
- Friend, M. (2008). Co-teaching: A simple solution that isn't simple after all. *Journal of Curriculum and Instruction*, 2(2), 9–19. <https://doi.org/10.3776/joci.2008.v2n2p9-19>
- Friend, M., and Cook, L. (1990). Collaboration as a predictor for success in school reform. *Journal of Educational and Psychological Consultation*, 1, 69–86. [https://doi.org/10.1207/s1-532768xjepc0101\\_4](https://doi.org/10.1207/s1-532768xjepc0101_4)
- Friend, M., Cook, L., Hurley-Chamberlain, D., and Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation*, 20(1), 9–27. <https://doi.org/10.1080/10474410903535380>
- Giakoumi, S., and Theofilidis, C. (2012). Collaborative culture as a supportive tool in teachers' work. *Proceedings of the 12th Conference of the Cyprus Pedagogical Society* (pp. 474–483). Cyprus Pedagogical Society.
- Hallam, P. R., Dulaney, S. K., Hite, J. M., and Smith, H. R. (2014). Trust at ground zero: Trust and collaboration within the professional learning community. *Trust and School Life: The role of trust for learning, teaching, leading, and bridging* (pp. 145–170). Springer Science + Business Media. [https://doi.org/10.1007/978-94-017-8014-8\\_7](https://doi.org/10.1007/978-94-017-8014-8_7)
- Hargreaves, A. (2019). Teacher collaboration: 30 years of research on its nature, forms, limitations and effects. *Teachers and Teaching*, 25(5), 603–621. <https://doi.org/10.1080/13540602.2019.1-639499>
- Hargreaves, A., and O'Connor, M. T. (2018). Solidarity with solidarity: The case for collaborative professionalism. *Phi Delta Kappan*, 100(1), 20–24. <https://doi.org/10.1177/00317-21718797116>
- Ifanti, A. A., Fotopoulou, V. S., and Gaziel, H. H. (2017). Comparative perspectives on professionalism and professional development: An exploratory case study of Greek primary school teachers'

- perceptions. *Research in Comparative and International Education*, 12(4), 486–496. <http://dx.doi.org/10.1177/1745499917740653>
- Johnston, W. R., and Tsai, T. (2018). *The prevalence of collaboration among American teachers. National findings from the American Teacher Panel*. Semantic Scholar; RAND Corporation. <http://doi.org/10.107249/rr2217>
- Khairuddin, K. F., Dally, K., and Foggett, J. (2016). Collaboration between general and special education teachers in Malaysia. *Journal of Research in Special Educational Needs*, 16, 909–913. <https://doi.org/10.1111/1471-3802.12230>
- Le, H., Janssen, J., and Wubbels, T. (2018). Collaborative learning practices: teacher and student perceived obstacles to effective student collaboration. *Cambridge Journal of Education*, 48(1), 103–122. <https://doi.org/10.1080/0305764X.2016.1259389>
- Molina, C. A., and López, F. S. (2019). Teachers' collaborative work: new toward [sic] for teacher's development. *Revista Internacional de Investigación En Ciencias Sociales*, 15(1), 119–133. <https://doi.org/10.18004/riics.2019.junio.119-133>
- Neal, G., Mullins, T., Reynolds, A., and Angle, M. (2013). Global collaboration in teacher education: A case study. *Creative Education*, 4(9), 533–539. <https://doi.org/10.4236/ce.2013.49078>
- Nguyen, C. D., Huynh, T. N., and Tran, N. H. (2022). Overcoming contextual constraints: Implementing classroom pedagogical innovation through teacher leadership. *International Journal of Leadership in Education*, 28(1), 1–19. <https://doi.org/10.1080/13603124.2021.2013543>
- Onabamiro, A. T. (2014). *Determinants of students' achievement in senior secondary school mathematics in south-western Nigeria* (Doctoral dissertation), University of Ibadan, Nigeria.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., and Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, 71. <https://doi.org/10.1136/bmj.n71>
- Paju, B., Kajamaa, A., Pirttimaa, R., and Kontu, E. (2022). Collaboration for inclusive practices: Teaching staff perspectives from Finland. *Scandinavian Journal of Educational Research*, 66(3), 427–440. <https://doi.org/10.1080/00313831.2020.1869087>
- Paloniemi, A., Björn, P. M., and Kärnä, E. (2023). Special education teachers' views on their agency in teacher collaboration. *European Journal of Special Needs Education*, 38(3), 349–362. <https://doi.org/10.1080/08856257.2022.2089509>
- Parker, A., Alvarez McHatton, P., and Allen, D. D. (2012). Elementary and special education pre-service teachers' understandings of collaboration and co-teaching. *Journal of Research in Education*, 22(1), 164–195.
- Pellegrino, A., Weiss, M., and Regan, K. (2015). Learning to collaborate: General and special educators in teacher education. *The Teacher Educator*, 50(3), 187–202. <https://doi.org/10.1080/08878730.2015.1038494>
- Pugach, M. C., Blanton, L. P., and Boveda, M. (2014). Working together: Research on the preparation of general education and special education teachers for inclusion and collaboration. In E. D. McCray, P. T. Sindelar, M. T. Brownell, and B. Lignugaris/Kraft (Eds.), *Handbook of Research on Special Education Teacher Preparation* (pp. 143–160). Routledge.
- Ramirez, S. M., and Lynch, Y. (2024). “Feeling our way around in the dark” AAC team collaboration in the context of service change: Special education teachers' perceptions. *Child Language Teaching and Therapy*, 40(1), 39–55. <http://dx.doi.org/10.1177/02656590241228422>
- Ricci, L. A., Zetlin, A., and Osipova, A. V. (2017). Preservice special educators' perceptions of collaboration and co-teaching during university fieldwork: Implications for personnel preparation. *Teacher Development*, 21(5), 687–703. <https://doi.org/10.1080/13664530.2017.1293561>
- Rieckmann, M. (2017). *Education for Sustainable Development Goals: Learning objectives*. UNESCO publishing.
- Rihter, J., Babuder, M. K., and Zuljan, M. V. (2023). Collaboration between special education teachers and visual arts education teachers in working with pupils with severe specific learning

- difficulties and its relationship to professional development. *European Journal of Special Needs Education*, 39 (1), 19-32. <https://doi.org/10.1080/08856257.2023.2185859>
- Robinson, G. (2017). *Perceptions and attitudes of general and special education teachers toward collaborative teaching* (Unpublished doctoral dissertation, Walden University). <https://doi.org/10622862>
- Saunders, C. H., Sierpe, A., Von Plessen, C., Kennedy, A. M., Leviton, L. C., Bernstein, S. L., Goldwag, J., King, J. R., Marx, C. M., Pogue, J. A., Saunders, R. K., Van Citters, A., Yen, R. W., Elwyn, G., and Leyenaar, J. K. (2023). Practical thematic analysis: A guide for multidisciplinary health services research teams engaging in qualitative analysis. *British Medical Journal*, e074256. <https://doi.org/10.1136/bmj-2022-074256>
- Scruggs, T. E., and Mastropieri, M. A. (2017). Making inclusion work with co-teaching. *Teaching Exceptional Children*, 49(4), 284–293. <https://doi.org/10.1177/0040059916685065>
- Shogbesan, Y. O., Adeoye, M. A., Osaro-Martins, B. E., & Shabi, Z. (2024). Perceived influence of administrative support on secondary school teachers' effectiveness. *Evaluation Studies in Social Sciences*, 5(2), 102–123. <https://doi.org/10.37134/esss.vol5.2.7.2024>
- Simon, B. D. (2017). *Successful collaboration between general education and special education teachers: A case study* (Unpublished doctoral dissertation, Northcentral University). <https://doi.org/1-0633779>
- Solis, M., Vaughn, S., Swanson, E., and Mcculley, L. (2012). Collaborative models of instruction: The empirical foundations of inclusion and co-teaching. *Psychology in the Schools*, 49(5), 498–510. <https://doi.org/10.1002/pits.21606>
- Strogilos, V., Stefanidis, A., & Tragoulia, E. (2016). Co-teachers' attitudes towards planning and instructional activities for students with disabilities. *European Journal of Special Needs Education*, 31(3), 344–359. <https://doi.org/10.1080/08856257.2016.1141512>
- Sutton, P. S., and Shouse, A. W. (2016). Building a culture of collaboration in schools. *Phi Delta Kappan*, 97(7), 69–73. <https://doi.org/10.1177/0031721716641653>
- Vangrieken, K., Dochy, F., Raes, E., and Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational Research Review*, 15, 17–40. <https://doi.org/10.1016/j.edurev.2015.04.002>
- Vasanthakumari, S. (2019). Soft skills and its application in work place. *World Journal of Advanced Research and Reviews*, 3(2), 66-72. <https://doi.org/10.30574/wjarr.2019.3.2.0057>
- Vostal, M., Vostal, B. R., Horner, C. G., and LaVenía, K. N. (2022). A qualitative exploration of trust between general and special educators: Implications for collaboration in the preparation of teacher candidates. *Social Sciences & Humanities Open*, 6(1), 100359. <https://doi.org/10.1-016/j.ssaho.2022.100359>
- Wilson College. (2024). *Benefits of Collaboration in special education*. <https://online.wilson.edu>
- Zagona, A. L., Kurth, J. A., and MacFarland, S. Z. (2017). Teachers' views of their preparation for inclusive education and collaboration. *Teacher Education and Special Education*, 40(3), 163-178. <https://doi.org/10.1177/0888406417692969>

**Author:****Assimina Tsibidaki, PhD**

Full Associate Professor, Department of Primary Education, University of the Aegean, 1 Dimokratias str., 85132 Rhodes, Greece, e-mail: [tsibidaki@aegean.gr](mailto:tsibidaki@aegean.gr)

Izredna profesorica, Oddelek za osnovno šolstvo, Univer za na Egejskem morju, 1 Dimokratias str., 85132 Rodos, Grčija, e-pošta: [tsibidaki@aegean.gr](mailto:tsibidaki@aegean.gr)

**Aikaterini Vrachna**

PhD Candidate, Department of Primary Education, University of the Aegean, 1 Dimokratias str., 85132 Rhodes, Greece, e-mail: [pred21003@rhodes.aegean.gr](mailto:pred21003@rhodes.aegean.gr)

Doktorska kandidatka, Department of Primary Education, University of the Aegean, 1 Dimokratias str., 85132 Rhodes, Greece, e-mail: [pred21003@rhodes.aegean.gr](mailto:pred21003@rhodes.aegean.gr)