

Teaching competence and learning styles of students with learning disabilities as assessed by the Special Education teachers

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ABSTRACT

Teaching competency includes the skills, knowledge, and attitudes educators use to teach and help students learn. Studies on raising instructors' awareness of talented and learning-disabled kids and developing collaborative groups to explore student needs stressed the importance of identifying individual differences and supporting various needs. The study of teaching ability and learning styles in students with learning impairments (LD) as judged by SPED teachers was crucial to special education research. Descriptive-correlational study was used to determine the association between SPED students' learning styles and teaching competencies. To simplify tabulation, 51 SPED instructors were selected to complete the modified survey using Google Forms. The findings of the study include that the majority of the SPED teachers in were 31 to 35 years of age, with an average age of 34.67 years old, mostly female, married, have continuously or finished their postgraduate studies, and have been teaching for more than 5 years; the extent of the teaching competence of the SPED teachers in identifying learning disabilities was regarded as moderately competent; the SPED teachers agreed that the students with learning disabilities' learning styles, as assessed by the teachers in terms of collaborative and independent learning, were exemplary; the teaching competence was significantly different when grouped according to the teachers' age, highest educational attainment, and number of years of teaching SPED; the level of learning styles of students with learning disabilities as to collaborative learning has a disparity with the teachers' age and number of years of teaching SPED; the teaching competencies and the variables for students' learning styles suggest a moderate correlation; and the teaching competencies have an 8.1% and 8.9% impact on the teachers' assessment of the students' learning styles for both collaborative and independent learning, respectively. This research recommends that students participate in their teachers' daily activities to improve their school behavior, that teachers improve their teaching competencies so they can easily identify the needs of their students with learning disabilities, and that school administrators provide focus group discussions for SPED teachers to learn the latest teaching pedagogies and evaluation techniques application.

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INTRODUCTION

The school environment is composed of individuals with diverse personal, ethnic, social, and religious backgrounds. Beyond these observable differences, however, are less visible but equally significant factors that shape students' educational outcomes, one of which is their learning ability. While some students grasp concepts with ease, others struggle considerably, leading to the recognition of learning disabilities (LD) within the school system. This has underscored the importance of examining both teaching competence and learning styles as critical factors in supporting students with LD. Teaching competence involves the skills, knowledge, and attitudes teachers use to facilitate learning, while learning styles highlight the cognitive preferences through which students engage with information. The interaction between these two domains is particularly crucial in special education, where individualized approaches are essential to student success.

Teaching competence, as emphasized by Tugba et al. (2023), is especially vital when addressing the needs of students with learning disabilities. These learners often require specialized instructional methods that foster comprehension and retention, making the role of Special Education (SPED) teachers indispensable. Equipped with targeted training and expertise, SPED teachers are uniquely positioned to provide strategies tailored to diverse learning needs. Similarly, the acknowledgment of varied learning styles is fundamental in ensuring inclusive education. Students with LD often present distinct preferences in how they process and retain information, necessitating differentiated strategies that go beyond generalized instructional approaches. Recognizing and adapting to these differences allows for more equitable learning opportunities.

The exploration of teaching competence and learning styles from the perspective of SPED teachers provides valuable insights into effective pedagogical practices. By understanding how these educators perceive and address the needs of students with LD, this study aims to identify strategies that enhance teaching effectiveness and ensure that learning experiences align with students' unique cognitive profiles. Grasha and Reichmann's learning style framework, which categorizes students into independent, dependent, collaborative, competitive, avoidant, and participant learners, offers a useful lens for analyzing such diversity. SPED teachers' capacity to recognize and respond to these variations plays a critical role in shaping interventions that support both academic achievement and holistic development.

The significance of this study is heightened by the far-reaching effects of learning disabilities, which extend beyond academic performance to include behavioral issues, diminished self-esteem, poor social interaction, and increased risks of dropout and delinquency (Alahmadi & El Sayed El Keshky, 2019). These challenges highlight the necessity of competent teaching and responsive support systems. Without accurate identification and tailored interventions, students

with LD are more likely to face barriers to success. Thus, examining the competence of SPED teachers in identifying and responding to LD, alongside their ability to accommodate different learning styles, is crucial for developing interventions that address these multifaceted challenges.

Grounding this study in established theories strengthens its academic foundation. Bandura's social learning theory emphasizes the importance of modeling and observational learning, providing a basis for how SPED teachers can influence students' learning behaviors. Sweller's cognitive load theory highlights the need to design instruction that accounts for the limits of working memory, which is especially relevant for students with LD who may struggle with processing information. Constructivist theory, advanced by Piaget and Vygotsky, underscores active and social construction of knowledge, reinforcing the importance of student-centered and collaborative approaches in diverse learning contexts. Together, these theories illustrate the interconnected strategies through which SPED teachers can enhance teaching competence and respond effectively to learning style differences.

The conceptual framework of this study follows the Input–Process–Output (IPO) model, offering a systematic approach to investigating SPED teachers' competence and students' learning styles. The input stage captures demographic data and relevant classroom information, while the process involves ethical approval, tool adaptation, and data collection. Data analysis then provides patterns and insights into teaching practices, culminating in an output: a proposed intervention plan to strengthen SPED teachers' performance. This structured methodology emphasizes the study's practical aim of contributing actionable strategies that support teachers in addressing the complex needs of students with LD.

By integrating theoretical perspectives, empirical assessment, and practical application, this study seeks to provide a comprehensive understanding of teaching competence and learning styles within the context of learning disabilities. Ultimately, the findings aspire to inform educational policies and practices that enhance instructional effectiveness, promote inclusivity, and improve the academic and personal outcomes of students with LD.

Statement of the problem

This study entitled “Teaching Competence and Learning Styles of Students with Learning Disabilities as Assessed by the SPED Teachers” sought to answer the following questions:

1. What is the demographic profile of the SPED teachers in terms of age, sex, civil status, highest educational attainment, and number of years in teaching SPED?
2. What is the extent of the teaching competence of the SPED teachers in identifying learning disability?
3. What is the level of learning styles of the students with learning disabilities as assessed by the SPED teachers in terms of collaborative learning and independent learning?
4. Is there a significant difference in the extent of the teaching competence of the SPED teachers in identifying learning disability when grouped according to the teachers' profile?
5. Is there a significant difference in the level of learning styles of the students with learning disabilities as assessed by the SPED teachers when grouped according to the teachers' profile?

6. Is there a significant relationship between the extent of the teaching competence of the SPED teachers in identifying learning disability and the level of learning styles of the students with learning disabilities as assessed by the SPED teachers?
7. Does the extent of the teaching competencies of SPED teachers significantly affect the level of learning styles of students with learning disabilities as assessed by the SPED teachers?
8. Based on the findings of the study, what intervention plan may be proposed?

METHODOLOGY

This study employed a descriptive-correlational research design to examine the relationship between the teaching competence of Filipino special education (SPED) teachers and the learning styles of students with learning disabilities in Waukegan Community Unit School District #60. A descriptive-correlational design was deemed appropriate as it allows for the identification and explanation of associations between two or more variables without inferring causality. By collecting and analyzing data on both teaching competence and student learning styles, the study sought to uncover significant patterns and connections. After assessing the respondents' competence and analyzing the data with appropriate statistical tools, conclusions and recommendations were drawn, culminating in the proposal of a training plan aimed at enhancing the teaching performance of international Filipino SPED teachers.

The respondents of the study were the fifty-one (51) SPED teachers in the Waukegan Community Unit School District #60 during the academic year 2023–2024. These teachers, who had at least one year of experience in handling students with learning disabilities, represented a wide distribution across various campuses and programs. Specifically, they included SPED teachers from Washington Elementary School, North Elementary School, Lyon Magnet Elementary School, Oakdale Elementary School, Clark Elementary School, Clearview Elementary School, Greenwood Elementary School, Glen Flora Elementary School, Hyde Park Elementary School, Robert Abbott Middle School, Jack Benny Middle School, John Lewis Middle School, Edith Smith Middle School, Waukegan High School – Washington Campus, and Waukegan High School – Brookside Campus. Their teaching assignments covered elementary, middle school, high school, co-taught programs, resource interventions, and specialized programs such as GAIN, STEP, and PLACE. Given the relatively small population of SPED teachers, total enumeration was used, thereby eliminating the need for sampling techniques and ensuring comprehensive data representation.

The primary research instrument consisted of an adopted and modified tool developed by Eyo and Nkanga (2020), which included the Questionnaire on Teachers' Competence in Identifying Pupils with Learning Disabilities (QTCIPLD). To complement this, a researcher-made survey questionnaire was developed to measure the learning styles of students with LD. The instrument was divided into three parts. The first section focused on the demographic profile of the respondents, including age, sex, civil status, highest educational attainment, and years of teaching experience. The second section assessed the teaching competence of SPED teachers in identifying students with learning disabilities, with descriptors ranging from "Highly Competent" to "Not Competent." The third section addressed the learning styles of students with

LD, focusing on independent and collaborative learning, with descriptors ranging from “Strongly Agree” to “Strongly Disagree.”

To ensure the validity and reliability of the instrument, three experts in the field of special education evaluated the survey. Their feedback was used to refine the questionnaire, ensuring that the items were aligned with the objectives of the study. Among the validators were one SPED teacher from Waukegan Community Unit School District #60 and two university professors. Reliability testing was conducted by administering the instrument to twenty primary school teachers from non-sample schools, yielding a Cronbach’s alpha coefficient of 0.922, which indicated excellent internal consistency.

Data gathering proceeded in several phases. First, the researcher secured permission from the original author of the research instrument to adopt and modify it for the study. This was followed by obtaining approval from the district’s associate superintendent of human resources to collect data among Filipino SPED teachers. Ethical considerations were strictly observed, particularly confidentiality and voluntary participation. Once approval was granted, the questionnaires were distributed to the respondents, who were given sufficient time to respond. They were informed that their participation was voluntary, and the estimated completion time for the survey was 10 to 15 minutes. Data collection was facilitated through Google Forms to streamline collation and minimize errors. After collection, the data were organized, presented in tabular form, and subjected to descriptive and inferential statistical analysis. Based on the findings, conclusions and recommendations were formulated, with an intervention plan envisioned as the study’s final output.

The statistical treatment of the data was designed to provide a clear and accurate analysis of the research objectives. Frequency and percentage distributions were employed to describe the demographic profile of the SPED teachers. Weighted means were used to analyze the responses to the Likert-scale items concerning teaching competence and learning styles. To test for significant differences in teaching competence according to sex, an independent samples t-test was applied. Meanwhile, analysis of variance (ANOVA) was employed to determine whether significant differences existed based on age, civil status, highest educational attainment, and years of teaching experience. These statistical tools allowed the researcher to test hypotheses rigorously and interpret findings objectively, thereby ensuring that the conclusions drawn were both valid and reliable.

Through the integration of a robust research design, careful instrument validation, ethical data collection, and rigorous statistical analysis, this methodology provided a systematic framework for exploring the relationship between teaching competence and learning styles of students with learning disabilities. The comprehensive approach enhanced the reliability of the findings and laid the foundation for the formulation of an intervention plan aimed at improving instructional practices and educational outcomes in special education.

RESULTS AND DISCUSSION

Demographic profile of the SPED teachers

The results of the study first examined the demographic profile of the SPED teachers in terms of age, sex, civil status, highest educational attainment, and number of years in teaching. Out of the 51 respondents, 11 or 21 percent were between the ages of 26 and 30, 24 or 47 percent were between 31 and 35, 8 or 16 percent were between 36 and 40, 4 or 8 percent were between 41 and 45, and another 4 or 8 percent were between 46 and 50, with the average age calculated at 34.67 years. This indicates that the majority of teachers were in the 31 to 35 age group and in the early stage of adulthood. This finding contrasts with the data of Zippia.com (2024), which reported that SPED teachers in general averaged 42 years old.

In terms of sex, 8 or 16 percent were male while 43 or 84 percent were female, showing a clear majority of female teachers. This supports Zippia.com's (2024) report that 75.4 percent of SPED teachers in the United States are female. With regard to civil status, 15 or 29 percent were single and 36 or 71 percent were married, implying that most SPED teachers had family responsibilities alongside their profession. In terms of highest educational attainment, 11 or 22 percent had completed a bachelor's degree, 19 or 38 percent held a bachelor's degree with master's units, 15 or 30 percent were master's degree graduates, and 5 or 10 percent had completed doctoral units. This indicates that the majority were continuously pursuing graduate studies to improve their professional qualifications. For teaching experience, 2 or 4 percent had been teaching SPED for one to five years, 23 or 45 percent for six to ten years, 18 or 35 percent for eleven to fifteen years, 2 or 4 percent for sixteen to twenty years, and 6 or 12 percent for twenty-one to twenty-five years. These results show that most teachers had been teaching for six to ten years, which means they had accumulated significant teaching experience.

Extent of the teaching competence of the SPED teachers in identifying learning disability

The extent of teaching competence of SPED teachers in identifying learning disabilities was also assessed. Across all indicators, the teachers were regarded as "Moderately Competent," with an overall mean score of 3.15. For example, the statement "Forgetting things can be an indicator of a learning disability in children" had a mean of 3.04, "A child with a learning disability may struggle with maintaining attention" had 3.47, "Poor handwriting can suggest the presence of a learning disability" had 2.90, and "Challenges in spelling, reading, or comprehending written material may indicate a learning disability" also had 3.47. Likewise, statements related to dyslexia, such as "Dyslexia manifests as difficulties in both reading and writing" (3.35), "Making substitutions, reversals, omissions, or repetitions of letters and words can be indicative of dyslexia" (3.33), and "Difficulty in recalling familiar words easily is a common trait of dyslexia" (3.14), were also rated moderately competent. Indicators of dysgraphia, such as "Extremely poor handwriting is symptomatic of dysgraphia" (3.25), "Struggling with writing tasks or exhibiting very slow or inaccurate copying" (3.22), "Writing incomplete words or omitting words during writing tasks" (3.10), "Unusual body, hand, or paper positioning while writing" (2.94), and "Mixing upper- and lower-case letters or using irregular

letter sizes or shapes” (2.96), all received moderate competence ratings. Similarly, indicators of dyscalculia, such as “Feeling anxious when dealing with math” (3.00), “Difficulty in recalling basic arithmetic facts” (3.20), “Struggles with basic operations like addition, subtraction, division, and multiplication” (3.16), “Difficulty in understanding time-related concepts” (3.02), and “Problems with making change and handling money” (3.00), were also moderately rated. These results demonstrate that SPED teachers were particularly adept at identifying academic difficulties such as reading and comprehension but less skilled in identifying issues based on handwriting. These findings are aligned with Safitri and Syahrial (2019), who emphasized that teachers’ competence impacts their ability to choose strategies aligned with learning outcomes. Literature from the Canadian Center for Science and Education (2021) also highlighted the need for teachers to adapt classroom practices for students with disabilities, as uniform procedures may not suit all learners.

Learning styles of the students with learning disabilities

The learning styles of students with learning disabilities were assessed in terms of collaborative and independent learning. Results showed that collaborative learning had an overall mean of 3.09, interpreted as “Agree.” Students reportedly enjoyed working with peers on projects (3.00), discussing subject content (3.08), hearing classmates’ views (3.00), sharing ideas (3.08), and studying together for tests (3.20). They also enjoyed classroom activities such as small group participation (2.94) and emphasized cooperation with teachers (3.04). Teachers observed that students tried to learn from going to class (3.24) and let others borrow notes (3.22). These findings suggest that collaborative learning plays a significant role in promoting engagement among students with disabilities. Adam et al. (2020) confirmed that collaborative teaching allows teachers to effectively address academic and behavioral challenges, while Lehman (2019) stressed that acknowledging learning issues enables students to develop adaptive strategies for academic success.

For independent learning, results showed an overall mean of 3.25, interpreted as “Agree.” Students were reported to be confident in their ability to learn important information (3.45), believed their ideas were as good as those in textbooks (3.41), studied what they considered important (3.45), and learned much on their own (3.41). They could determine important content issues independently (3.41) and enjoyed developing their ideas (3.55). They also tried to solve problems before seeking help (3.00). However, some indicators such as having their own ideas about how classes should be run (2.94) and finding out more about topics of interest independently (2.88) received slightly lower agreement. Overall, these results imply that students with learning disabilities display significant independence in learning, especially when motivated by interest. This finding is consistent with Joswik et al. (2023), who explored the intersection of learning styles and mathematics education for students with disabilities, and Paul Main (2022), who emphasized that learners with disabilities often exert control and take responsibility for their own learning.

The study also examined whether significant differences existed in teaching competence when grouped according to teacher profile. Results showed significant differences based on age, highest educational attainment, and years of teaching SPED, while no significant differences

were found in terms of sex and civil status. This implies that maturity, postgraduate education, and experience significantly influence teaching competence. Findings are supported by ElSaheli-Elhage et al. (2018), who emphasized the importance of training and experience in teacher competence, and Allam and Martin (2021), who noted challenges faced by SPED teachers due to inadequate resources and professional support.

Difference in the extent of the teaching competence of the SPED teachers in identifying learning disability

Significant differences were also examined in terms of students' learning styles when grouped according to teacher profiles. For collaborative learning, significant differences were found based on teacher age and years of experience, while for independent learning, significant differences were found based on age, sex, and civil status. This indicates that demographic factors influence how teachers assess and facilitate learning styles. The findings are consistent with Kaimara et al. (2021), who stressed the adaptability of modern learning environments, and Moore et al. (2020), who found cooperative learning effective for students with learning difficulties.

The relationship between teaching competence and learning styles was also explored. Results showed moderate but significant correlations between teaching competence and collaborative learning ($r = 0.285$, $p = 0.042$) and between teaching competence and independent learning ($r = 0.298$, $p = 0.033$). This highlights that SPED teachers' competence plays an important role in shaping students' learning experiences. These findings support the results of Eyo and Nkanga (2020), who stressed the need for standardized tools and training for teachers, and Rosal and Jessie (2021), who noted that understanding teaching and learning styles among students with disabilities enhances instructional effectiveness.

Difference in the level of learning styles of the students with learning disabilities as assessed by the SPED teachers

Regression analysis further revealed that teaching competence significantly affected students' learning styles. Teaching competence explained 8.1 percent of the variance in collaborative learning and 8.9 percent in independent learning. These results demonstrate that teaching competence has a measurable impact on how students with learning disabilities develop both collaborative and independent learning styles. Alexander (2020) highlighted the need for professional development in accurate assessment, empathy, and communication, while Padillo (2023) emphasized the role of teacher characteristics and technology integration in strengthening competence.

Based on these findings, an intervention plan was proposed entitled Strengthening the Teaching Profession: A Special Education Teacher Intervention Program. The program aims to enhance teachers' ability to identify learning disabilities and respond effectively to diverse learning styles. Its objectives include providing professional development, improving curriculum adaptation, enhancing assessment skills, and strengthening collaboration among educators and stakeholders. The plan outlines workshops, mentorship, coaching, parental involvement, and interdisciplinary team meetings supported by administrators, district coordinators, and external

specialists. It provides a structured timeline spanning orientation, classroom implementation, mid-year reviews, advanced training, and year-end evaluation, with a proposed budget of \$10,000. The program emphasizes the integration of technology, community engagement, and continuous professional reflection.

In conclusion, the results of the study underscore the importance of teacher competence in identifying learning disabilities and addressing diverse learning styles. The findings highlight the significant influence of age, educational attainment, and teaching experience on competence, as well as the role of collaboration and independence in students' learning. By implementing the proposed intervention program, SPED teachers can be better equipped to meet the challenges of inclusive education, fostering both professional growth and improved outcomes for students with learning disabilities.

CONCLUSION

The study concluded that SPED teachers were moderately competent in identifying learning disabilities, with particular strength in recognizing difficulties in spelling, reading, and comprehending written material. However, their ability to detect learning disabilities manifested through handwriting difficulties was relatively weaker. This suggests that while teachers are adept at identifying more evident signs of learning impairments, there remains a need for enhanced training in recognizing subtle indicators.

Teachers expressed confidence in their students' learning abilities, observing that learners with disabilities actively engaged in class, enjoyed working collaboratively, demonstrated critical thinking skills, and diligently completed assignments. This affirmed the presence of positive learning behaviors among students with learning disabilities, which were nurtured through collaborative and independent learning opportunities. At the same time, the study revealed that teaching proficiency varied across individuals, shaped by age, level of education, and years of experience, underscoring that professional maturity and continued practice contribute significantly to instructional effectiveness.

The results further demonstrated that the learning styles of students with disabilities differed significantly when grouped according to the teachers' age, sex, civil status, and years of experience. Collaborative approaches, in particular, were found to be exemplary, benefitting both educators and specialists working with students with disabilities. These variations highlighted the importance of tailoring instructional approaches to both student needs and teacher characteristics. The findings also affirmed that SPED teachers' competencies had a measurable effect on learning styles, with an 8.1 percent impact on collaborative learning and an 8.9 percent impact on independent learning, as indicated by the regression analysis. This demonstrates the critical influence of teaching competence on fostering effective learning styles in students with disabilities.

The study also emphasized that SPED teachers valued their own teaching abilities while evaluating students' collaborative and independent learning styles. Their teaching competence not only supported inclusive practices but also played a significant role in shaping the academic outcomes of students with learning disabilities. As such, the proposed intervention program was carefully designed based on the areas where teaching competencies and assessments of learning

styles received the lowest mean ratings. This ensures that the program directly addresses identified gaps and strengthens teacher preparedness in meeting the diverse needs of learners.

Overall, the conclusions point to the vital role of teacher competence, continuous professional development, and collaborative practices in supporting the academic growth of students with learning disabilities. The findings affirm that while SPED teachers in the district demonstrated commendable skills, targeted interventions and ongoing training remain essential in enhancing their ability to identify subtle learning issues and implement effective teaching strategies. The study underscores the importance of institutional support, professional growth opportunities, and evidence-based practices in building a stronger and more responsive special education system that promotes inclusive and equitable learning experiences.

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