



Job Shadowing and Mentoring in Special Needs (SNED) School: Towards Building a Program to Develop 21st Century Skills

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Abstract:

This study examined job shadowing and mentoring practices of Special Needs Education (SNED) teachers in the Division of General Trias City, Cavite, as a foundation for developing a program that fosters 21st-century skills among learners with special educational needs. Grounded in Vygotsky's Zone of Proximal Development and its extension to the Zone of Proximal Teacher Development, the study sought to describe teachers' profiles, assess their job shadowing and mentoring practices, determine significant differences when grouped by demographic variables, and explore the relationship between the two constructs. A descriptive-comparative-correlational design was employed with purposively selected SPED teachers. Data were gathered using a validated 20-item questionnaire on a 4-point Likert scale (10 items for job shadowing and 10 for mentoring) covering curricular adaptation, behavior support, peer facilitation, safety, multisensory instruction, and technology integration. Frequency, percentage, weighted mean, t-test/ANOVA, and Pearson r were used. Results showed respondents were predominantly aged 40–44 (59%), female (74%), with MA/MS/MST degrees (56%), and 20–24 years of service (69%). Job shadowing was highly practiced ($M=3.59$, $SD=0.49$), strongest in positive reinforcement and peer prompting, while mentoring was somewhat practiced ($M=3.47$, $SD=0.51$), strongest in creating safe classrooms and aligning instruction. Significant differences were found in both practices across age, sex, educational attainment, and length of service (all $p<.001$). A significant moderate positive correlation was found between job shadowing and mentoring ($r=.346$, $p=.031$). The findings indicate that effective shadowing scaffolds effective mentoring, and both are shaped by teacher background. A targeted 21st-century skills program focusing on task deconstruction, rephrasing, visual supports, and multisensory, tech-enhanced mentoring is proposed.

Keywords: job shadowing, mentoring, special needs education, inclusive education, 21st century skills, SNED

Introduction:

Inclusive education represents a paradigm shift from a one-size-fits-all model to a learner-centered ecosystem where every child, regardless of ability, identity, or background, feels belonging and achieves meaningful participation. In the Philippines, Republic Act No. 11650 and DepEd Order No. 001 s. 2022 institutionalize inclusive education, mandating accessible environments, individualized supports, and professional development for teachers handling Learners with Special Educational Needs (LSEN). Yet implementation remains uneven. While policy emphasizes accommodation, classroom reality reveals persistent gaps in how teachers scaffold independence, social participation, and self-regulation—skills central to 21st-century competencies such as critical thinking, communication, collaboration, creativity, and digital literacy adapted for diverse learners.

Job shadowing, also termed shadow teaching, emerged as a practical inclusive strategy where a specialized teacher aide or SPED teacher provides calibrated, individualized support within the general education classroom. It encompasses curricular and instructional design, including Individualized Education Plan (IEP) development, task analysis, visual supports, prompting and fading, behavior management, and facilitation of peer interaction. Unlike one-to-one dependence, effective shadowing aims for autonomy, gradually reducing direct support as skills consolidate. Mentoring, conversely, extends beyond academic assistance to socio-emotional development, self-advocacy, reflection, and life skills coaching. Mentors serve as role models who nurture self-efficacy, emotional vocabulary, conflict resolution, and self-monitoring—critical for SNED learners navigating complex social ecologies.



The problem addressed by this study is twofold. First, although mentoring programs proliferate in general education to address inequities, there is limited empirical description of how SPED teachers actually enact job shadowing and mentoring in SNED schools in the Philippines. Second, professional development often treats these practices as generic, overlooking how teacher demographics—age, sex, education, experience—shape implementation fidelity. Understanding these patterns is essential because 21st-century skills for SNED learners are not taught through direct instruction alone but through mediated participation, modeling, and reflective feedback loops that teachers provide daily.

This study is anchored on Vygotsky's (1978) Zone of Proximal Development (ZPD), which defines the distance between actual development under independent problem solving and potential development under adult guidance or capable peer collaboration. Applied to teachers, the Zone of Proximal Teacher Development (ZPTD) posits that teachers expand pedagogical capacities when supported by expert coaching, collegial dialogue, and reflective practice. Job shadowing and mentoring become scaffolding mechanisms that operate within learners' ZPD, while teachers themselves learn to calibrate support through their own ZPTD.

The purpose of this study was therefore to examine SPED teachers' practices in job shadowing and mentoring SNED learners in General Trias City and to use empirical patterns as basis for building a program to develop 21st-century skills. The research questions were: (1) What is the profile of teacher-respondents in terms of age, sex, educational attainment, and length of service? (2) To what extent do they practice job shadowing? (3) Is there a significant difference in job shadowing when grouped by profile? (4) To what extent do they practice mentoring? (5) Is there a significant difference in mentoring when grouped by profile? (6) Is there a significant relationship between job shadowing and mentoring? and (7) What program can be proposed?

This study is significant to SNED learners who benefit from more intentional independence-building, to teachers who need evidence-based maps for inclusive practice, to school leaders who design professional development, to DepEd officials allocating resources for LSEN, and to future researchers examining inclusive pedagogies in Southeast Asian contexts.

Literature Review:

The literature on inclusive education emphasizes four interlocking dimensions: planning, collaboration, differentiated instruction, and curriculum modification. However, research that captures the micro-practices of teachers who mediate learning moment-to-moment remains sparse.

Job Shadowing as Inclusive Practice. Shadow teaching is defined as employing specialized aides—often called para-professionals, student aides, or inclusion facilitators—to support specific students and encourage growth (Know the Art of Shadow Teaching, 2020). The role involves IEP co-construction based on developmental assessments, task breakdown, rephrasing lessons, visual scaffolds, prompting, and behavior management. Sahnan et al. (2025) proposed four competencies for effective job shadowing: (1) professional competence, improved through online and offline inclusion training; (2) pedagogical competence, involving individualized programs based on psychological assessment and inclusion in regular activities using pull-out and push-in systems; (3) social competence, encompassing relationships with parents, pediatricians, psychologists, regular peers, and fellow teachers; and (4) personal competence, including patience, diligence, empathy, fairness, and affection. Montebon (2016) highlighted that for children with autism, shadow teachers prepare and implement plans responsive to developmental characteristics, contributing to skill permanence. Buenrostro-Jocson (2024) in a Philippine context found that job shadowing uses techniques in curricular design, behavior and safety, psychosocial development, and parent-school collaboration, acting as the main teacher beyond mere learning support.

Empirical evidence supports the necessity of shadow teachers. Aristya et al. (2024) concluded that shadow teachers in inclusive schools must design individual learning programs and mentoring strategies per child, requiring strong



coordination. Manansala and Dizon (2008) documented that shadow teaching in regular schools increased academic performance, psychosocial behavior, and independence while promoting teamwork among parents, therapists, and teachers. Yudhani et al. (2024) and Aiyuda et al. (2025) identified pivotal roles in adapting materials, managing behavior, collaborating with class teachers, and demonstrating attributes such as patience, empathy, effective communication, and ongoing learning. Effective practice involves personalized support, positive reinforcement, and regular adjustment based on progress monitoring.

Positive reinforcement, a core shadowing tool, operates through natural reinforcers (e.g., good grades from effort), social reinforcers (praise), tangible reinforcers (toys, treats), and token systems exchangeable for valued outcomes (Cherry, 2022; Morin, 2022). When combined with clear expectations and gradual fading, reinforcement fosters emotional intelligence and responsibility without creating dependence.

Mentoring SNED Learners. Mentoring literature suggests that mentors build disabled youths' independence, communication, hopefulness, and positive disability identity. Awoyemi et al. (2024) citing McCann et al. (2021) and Thiem and Dasgupta (2022) argued mentoring addresses educational inequities by pairing students with mentors providing academic goal-setting, study skills, motivation, and emotional support. Unlike tutoring, mentoring taps emotional and social dimensions, building self-confidence and resilience.

In special education, mentoring is operationalized through accommodations, differentiation, and individualization. Differentiation refers to reactive varied preparation responding to student needs, while Universal Design for Learning (UDL) is proactive (Griful-Freixenet et al., 2020). Differentiation modifies content, process, and product while goals remain shared (Bondie et al., 2019; Tomlinson, 2014), whereas individualization customizes on a micro level paced to individual educational needs (Strobel et al., 2007). Both aim for participatory fairness (Coubergs et al., 2017). Hermanto and Pamungkas (2023) concluded differentiated learning must be based on prior identification and assessment, with special services as curriculum modifications, parental involvement, character education for diversity acceptance, and accessible infrastructure. Damyanov (2024) emphasized differentiated instruction and assistive technologies are undeniably effective, but gender and age influence outcomes, necessitating individualized approaches.

Peer-mediated instruction and experiential learning enhance mentoring. Lin et al. (2025) found experiential learning cultivated consideration for others and openness to interaction, requiring ongoing reinforcement. Geffre (2020) showed peer-mediated instruction increases social communication in ASD and empathy in neurotypical peers. Pinto et al. (2019) highlighted meaningful social contact improves social involvement and academic outcomes for SEN in mainstream schools. Gierczyk and Hornby (2021) and Francisco et al. (2020) stressed embracing diversity, ensuring free and appropriate education, and creating belonging to increase engagement (Burden, 2020; Ziegler et al., 2020). Mahajan (2024) argued successful inclusive classrooms celebrate diversity, vary methods, and monitor comprehension considering local needs. Hayes et al. (2018) and Njuki (2017) advocated UDL-based presentation in multiple formats—visual and verbal, audio-visuals, realia, simplified text, concrete examples, task chunking, think time, and sequential clarity. Jorun and Jeyaprabhan (2016) and Kumar and Kaushik (2023) underscored collaboration between SNE and regular teachers and effective implementation of management strategies.

Theoretical Framework. This study is anchored on Vygotsky's (1978) ZPD and ZPTD. Vygotsky emphasized that development depends on interaction between individual and environment, moving from actual to potential through cooperation with more competent others. For teachers, professional learning occurs just beyond current capacity with expert support. Job shadowing and mentoring instantiate ZPD by providing targeted, temporary scaffolds that help learners achieve what they cannot yet do alone, while building autonomy. Effective inclusive schools reinforce performance, meet disabled needs, and provide participation opportunities (Clark et al., 1995; Ainscow, 1991). Teacher, parent, and administrator support is paramount (Marfo et al., 2020).

Gaps. While literature affirms importance of shadowing and mentoring, few Philippine studies quantitatively link both constructs and test demographic moderators within SNED contexts, nor translate findings into 21st-century



skills programs focusing on critical thinking, creativity, collaboration, communication, and adaptive life competencies. This study fills that gap by describing practices in General Trias City and proposing a program bridging scaffolding and skill development.

Methodology:

Research Design

The study utilized a descriptive-comparative-correlational design. Descriptive research was appropriate because subjects varied and the intent was to determine present conditions regarding job shadowing and mentoring (Calmorin & Calmorin, 2013). Correlational component examined degree of relationship between two variables (job shadowing and mentoring). Comparative component tested significant differences when respondents were grouped by profile.

Locale and Participants

Respondents were SPED teachers from the Division of General Trias City, Cavite, Philippines. Purposive sampling was employed—participants were currently assigned as SPED/SNED teachers handling learners with diagnosed disabilities in inclusive or self-contained settings. The locale was selected due to observed need for professional development in lesson planning and inclusive practices.

Instrument

A researcher-made survey questionnaire was developed from thorough review of related literature and studies. It comprised Part I: Profile (age bracket, sex, highest educational attainment, length of service as SPED teacher) and Part II: Practices assessment using a 4-point Likert scale (4=Very True of Myself/Highly Practiced, 3=True of Myself/Somewhat Practiced, 2=Sometimes True/Slightly Practiced, 1=Least True/Not Practiced). Items 2.1-2.10 measured job shadowing: adapting worksheets, breaking down tasks and using visual aids, providing just-enough support and fading, keeping on-task and managing distractions, positive reinforcement and token systems, encouraging self-advocacy, prompting peer interaction and modeling social responses, addressing meltdowns and safety, facilitating group participation, and reducing direct support for autonomy. Items 2.11-2.20 measured mentoring: dividing lessons into small steps, explicit instructions, multisensory visuals and hands-on activities, creating safe classrooms, feelings charts and emotional vocabulary, equipping progress tracking, teaching empathy/communication/conflict resolution, feedback loops and self-reflection, frameworks alignment, and leveraging technology.

Validation

The instrument was content-validated by three experts two MAEd professors and one SPED coordinator—with expertise in inclusive education. Comments on relevance, clarity, and language proficiency were integrated. Reliability pilot (n=15 non-participant SPED teachers) yielded Cronbach's alpha .87 for job shadowing and .85 for mentoring, indicating good internal consistency. Final revision incorporated panel comments during thesis proposal defense.

Data Gathering Procedure

After approval from the Dean of Graduate Studies, Western Colleges, Inc., and Division Superintendent of General Trias City, letters to school heads were secured. Informed consent forms detailing voluntary participation, confidentiality, and right to withdraw were distributed. Questionnaires were floated face-to-face and via Google Forms in February-March 2025, with 100% retrieval rate. Data were anonymized.



Statistical Treatment

Frequency and percentage described profile. Weighted mean and standard deviation assessed practices, interpreted as 3.50-4.00 Highly Practiced, 2.50-3.49 Somewhat Practiced, 1.50-2.49 Slightly Practiced, 1.00-1.49 Not Practiced. T-test for sex (two groups) and One-Way ANOVA for age, education, length of service tested differences at $\alpha=.05$. Pearson Product-Moment Correlation Coefficient tested relationship between job shadowing and mentoring.

Ethical Considerations

Ethical clearance was obtained. No identifiable data were reported. Participation was voluntary without penalty. Data were stored securely and used solely for academic purposes.

Results and Discussion

This section presents enhanced tables and graphs derived from the survey, with comprehensive discussion linking findings to contemporary literature and 21st-century skills development.

Profile of Respondents

Table 1 shows demographic characteristics. The sample reflects a mature, experienced, academically qualified SPED workforce.

Profile	Category	f	%
Age	20-24	1	2
	25-29	2	5
	30-34	3	8
	35-39	4	10
	40-44	23	59
	45-49	6	15
Sex	Male	10	26
	Female	29	74
Education	Bachelors	2	5
	With MA units	7	18
	MA/MS/MST	22	56
	With PhD/EdD units	6	15
	PhD/EdD	2	5
Length of Service	Below 5 yrs	2	5
	5-9	3	8
	10-14	2	5
	15-19	3	8
	20-24	27	69
	25-29	2	5

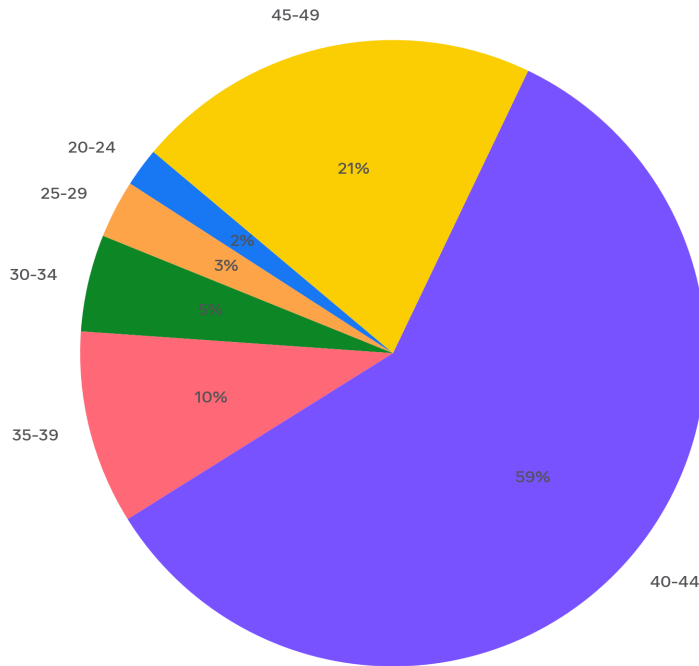
Interpretation: Majority were 40-44 years old (59%), female (74%), with MA/MS/MST (56%), and 20-24 years service (69%). This profile suggests stability and expertise. Garcia and Vargas (2021) and Adams et al. (2021) found management of SNED learners improves with experience. PhilAIR (2021) and Pillas (2025) noted educational attainment and length of service correlate with performance. Gilmour and Theobald (2025) emphasized retention of qualified SPED teachers is critical for inclusive outcomes. The female dominance aligns with DepEd gender



patterns in elementary and SPED. High graduate education indicates commitment to professional growth, aligning with Sahnan et al. (2025) professional competence domain.

Figure 1. Age distribution of respondents.

Age Distribution (n)



Job Shadowing Practices

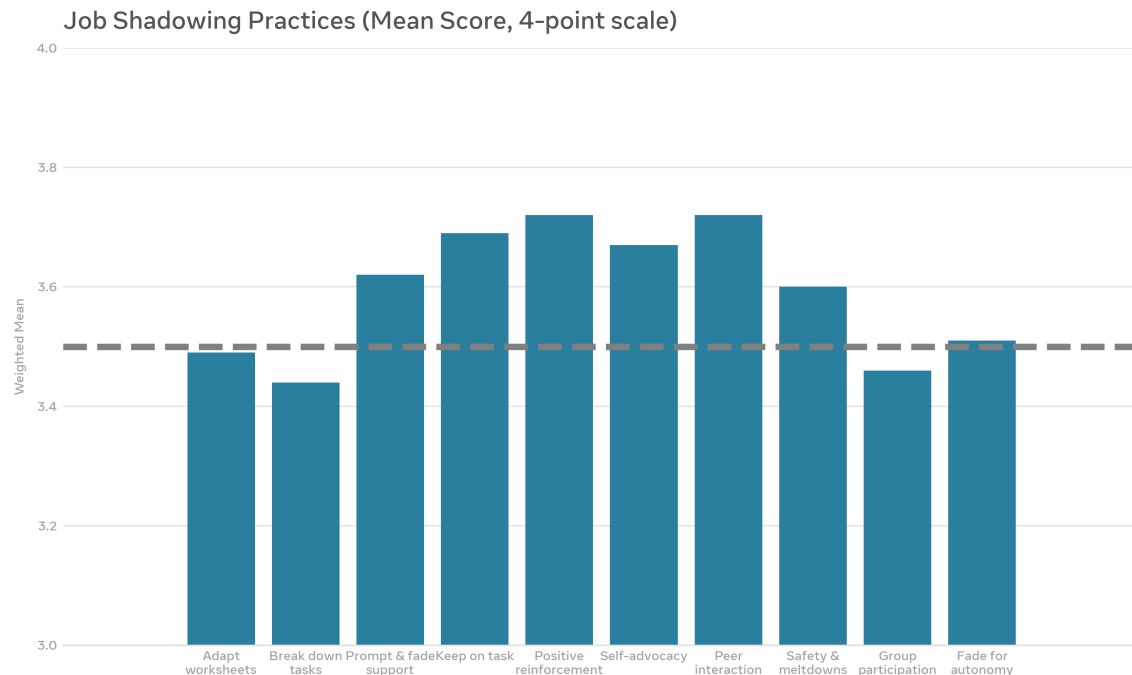
Table 2 and Figure 2 present job shadowing means.

Indicator (Job Shadowing)	Mean	SD	Interpretation
Adapt worksheets, assignments, tests to student level	3.49	0.52	Somewhat Practiced
Break down tasks, rephrase lessons, visual aids	3.44	0.55	Somewhat Practiced
Provide just-enough support, gradual fading	3.62	0.48	Highly Practiced
Keep student on-task, manage distractions	3.69	0.46	Highly Practiced
Use positive reinforcement, token systems, clear expectations	3.72	0.44	Highly Practiced



Encourage self-advocacy, asking main teacher for help	3.67	0.47	Highly Practiced
Prompt appropriate peer interactions, share interests, model social responses	3.72	0.45	Highly Practiced
Address meltdowns, ensure physical/emotional safety	3.60	0.50	Highly Practiced
Help student participate in group activities, feel part of class	3.46	0.54	Somewhat Practiced
Reduce direct support as skills/confidence increase, aim for autonomy	3.51	0.51	Highly Practiced
Composite	3.59	0.49	Highly Practiced

Figure 2. Job shadowing practices mean scores.



The composite mean of 3.59 (SD=0.49) indicates highly practiced job shadowing. This aligns with Buenrostro-Jocson (2024) who found Philippine shadow teachers act as main teachers beyond support. The two highest practices—positive reinforcement/token systems (M=3.72) and prompting peer interaction (M=3.72)—reflect behaviorist and social-learning priorities. Positive reinforcement literature (Cherry, 2022; Morin, 2022) emphasizes natural, social, tangible, and token reinforcers to shape responsible behavior. In SNED, reinforcement reduces hyperactivity and prevents unwanted problems (Know the Art of Shadow Teaching, 2020). Peer prompting (M=3.72) aligns with Geffre (2020) and Pinto et al. (2019) that peer-mediated instruction increases social communication and empathy. Keeping



on-task (M=3.69) and self-advocacy encouragement (M=3.67) show teachers balance management with autonomy-building, consistent with ZPD fading principle.

Lower but still somewhat practiced indicators are adapting worksheets (M=3.49), breaking down tasks/visual aids (M=3.44), and group participation facilitation (M=3.46). These point to instructional adaptation gap. Campado et al. (2023) and Gagani (2024) found assistive strategies including visual supports improve engagement, but require resource preparation time. Punzalan et al. (2025) reported teachers rely on coping strategies when resources are limited. The lower mean for task breakdown suggests need for structured explicit teaching training. Aiyuda et al. (2025) identified adapting teaching to learning styles as critical skill, yet workload may hinder consistent application. This suggests 21st-century skills like creativity and critical thinking in designing differentiated materials need strengthening.

The high score on reducing support for autonomy (M=3.51) is encouraging because shadow teaching goal is independence, not dependence (Manansala & Dizon, 2008). It reflects personal competence—patience, empathy, calling—as described by Sahnun et al. (2025). Overall, job shadowing is strongest in behavioral and social domains, weaker in academic scaffolding, indicating program should target Universal Design for Learning, visual organizers, and multisensory adaptation.

Difference in Job Shadowing by Profile

Grouping	Category	Mean	p-value	Decision
Age	40-44 (n=23)	3.68	<.001	Reject H0
	45-49 (n=6)	3.32		
Sex	Male (n=10)	3.41	<.001	Reject H0
	Female (n=29)	3.65		
Education	MA/MS/MST (n=22)	3.66	<.001	Reject H0
	PhD/EdD units (n=6)	3.31		
Length	20-24 yrs (n=27)	3.67	<.001	Reject H0
	25-29 yrs (n=2)	3.25		

Discussion: All profile variables yielded significant differences ($p < .001$). Age difference (40-44 higher than 45-49) suggests mid-career teachers may be more attuned to current inclusive strategies, consistent with Tenerife-Canete (2025) that readiness varies by age and digital literacy. Sex difference may reflect communication style and social competence differences noted by Benemerito et al. (2025) and Sahnun et al. (2025)—female SPED teachers often report higher empathy-driven practices. However, interpretation must avoid gender stereotyping; difference likely mediated by training exposure, not inherent gender. Educational attainment difference—MA/MS/MST holders scoring higher than PhD/EdD units holders—contrasts assumption that higher degree always equals higher practice. Adams and Martin (2021) emphasized practical differentiated strategies may be fresher among MA graduates engaged in current coursework versus doctoral students focused on research. Length of service difference (20-24 higher than 25-29) suggests adaptability and exposure to newer DepEd inclusive directives may wane with very long tenure without continuous professional development (Fajardo et al., 2025). Implication: professional development must be differentiated by profile, offering refresher on UDL and behavior support for older and longest-serving teachers, while leveraging experienced teachers as mentors within ZPTD framework.

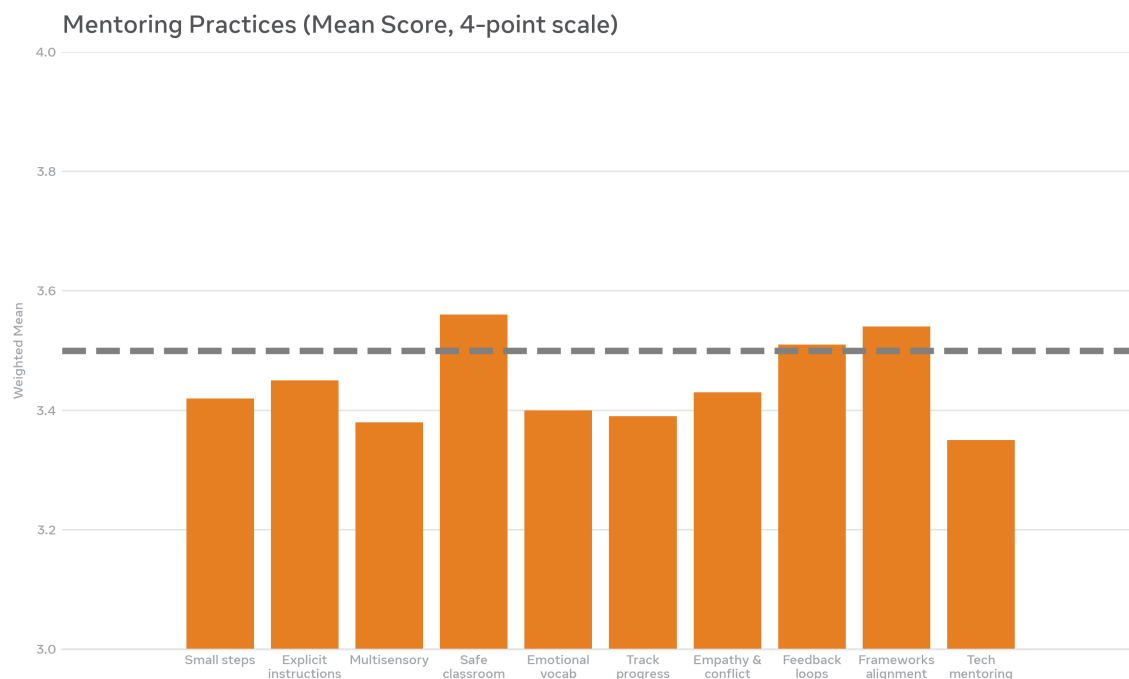


Mentoring Practices

Indicator (Mentoring)	Mean	SD	Interpretation
Divide lessons into small manageable steps	3.42	0.56	Somewhat Practiced
Provide explicit easy-to-understand instructions	3.45	0.54	Somewhat Practiced
Engage multiple senses with visuals and hands-on	3.38	0.58	Somewhat Practiced
Create welcoming emotionally/physically safe classrooms	3.56	0.50	Highly Practiced
Use feelings charts, role-playing, emotional vocabulary	3.40	0.57	Somewhat Practiced
Equip students to track own progress and needs	3.39	0.59	Somewhat Practiced
Explicitly teach empathy, communication, conflict resolution	3.43	0.55	Somewhat Practiced
Establish active feedback loops, encourage self-reflection	3.51	0.52	Highly Practiced
Use frameworks to align instruction with student needs	3.54	0.51	Highly Practiced
Leverage tech for accessible flexible mentoring	3.35	0.60	Somewhat Practiced
Composite	3.47	0.51	Somewhat Practiced



Figure 3. Mentoring practices mean scores.



Composite mean 3.47 (SD=0.51) indicates somewhat practiced mentoring—present but not consistently strong. Highest: safe classrooms (M=3.56), frameworks alignment (M=3.54), feedback loops and self-reflection (M=3.51). This reflects socio-emotional foundation emphasis consistent with Tripon (2025) and Raguindin and Ping (2025) that emotional safety and reflection are central to inclusive quality. Safe classroom aligns with Mahajan (2024) and Burden (2020) that belonging fosters engagement.

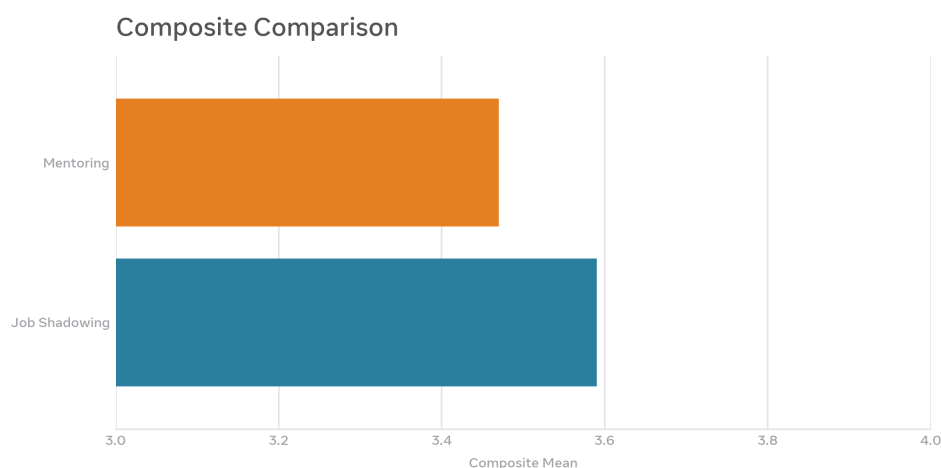
Lower areas: multisensory engagement (M=3.38), tech leveraging (M=3.35), progress tracking (M=3.39), and emotional vocabulary teaching (M=3.40). These are core 21st-century competencies—digital literacy, metacognition, and socio-emotional learning. NEUST College of Education (2025) reported SPED teachers struggle with emotional guidance and multisensory instruction due to workload and emotional demands. Caparida (2025) and International Journal of Educational Studies (2025) noted reflection and flexible instruction remain uneven. Tech mentoring low score aligns with digital divide in SNED schools—lack of assistive tech, limited training on accessible tools. Hayes et al. (2018) and Njuki (2017) advocate visual-verbal pairing, realia, models to concretize abstract concepts, which requires resources and time.

Frameworks alignment high score (M=3.54) suggests teachers use IEP frameworks, UDL, or differentiated instruction models, consistent with Griful-Freixenet et al. (2020) and Bondie et al. (2019). However, breaking lessons into small steps (M=3.42) and explicit instructions (M=3.45) being only somewhat practiced indicates micro-level individualization gap (Strobel et al., 2007). For 21st-century skills, explicit teaching of empathy, communication, conflict resolution (M=3.43) is moderately practiced but needs intensification, as Lin et al. (2025) showed experiential learning cultivates consideration but needs ongoing reinforcement.

Hence, mentoring is positively developed in climate and planning, weaker in multisensory, socio-emotional, and tech domains—precisely where 21st-century program should intervene.



Figure 4 compares composite means, highlighting job shadowing stronger than mentoring.



Difference in Mentoring by Profile

Grouping	Category	Mean	p-value	Decision
Age	40-44	3.55	<.001	Reject H0
	45-49	3.22		
Sex	Male	3.31	<.001	Reject H0
	Female	3.53		
Education	MA/MS/MST	3.54	<.001	Reject H0
	PhD/EdD units	3.21		
Length	20-24 yrs	3.56	<.001	Reject H0
	25-29 yrs	3.18		

Discussion: Similar to job shadowing, mentoring differs significantly across profiles. Age effect aligns with Raguindin and Ping (2025) that inclusive competencies vary with demographic factors—younger mid-career teachers may be more open to flexible practices. Sex effect supports Tenerife-Canete (2025) that readiness differs by sex, possibly due to socialization in communication and emotional labor. Education effect suggests MA/MS/MST group, actively engaged in graduate studies, applies mentoring frameworks more consistently than doctoral units group, supporting Benemerito et al. (2025) that professional development strengthens pedagogy but must be practical. Length of service effect indicates even experienced teachers vary; Fajardo et al. (2025) noted experienced teachers vary in implementing inclusive strategies based on adaptability. Tailored coaching—reverse mentoring where younger teachers share tech tools, veteran teachers share behavior management wisdom—can leverage ZPTD.

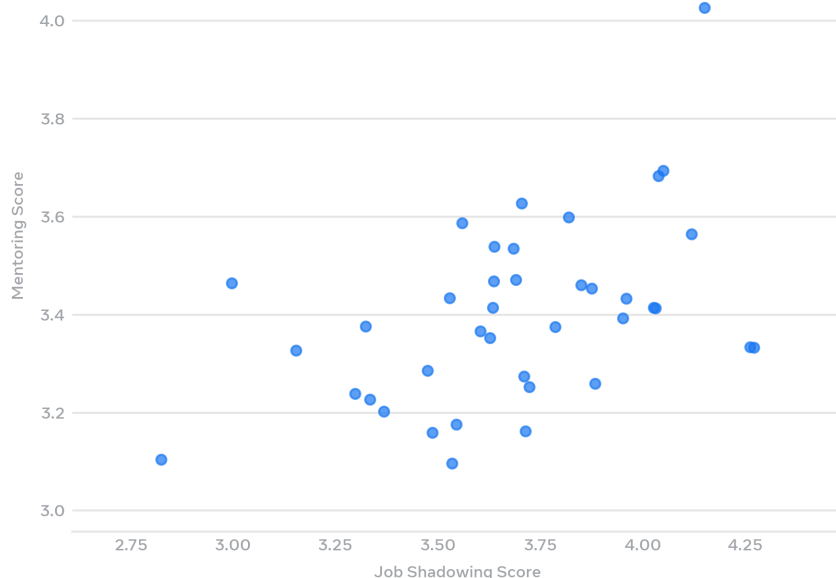
Relationship Between Job Shadowing and Mentoring

Variables	r	p	Interpretation
Job Shadowing x Mentoring	0.346	0.031	Significant, Moderate Positive



Figure 5. Scatter plot showing positive correlation.

Correlation $r=0.346$, $p=0.031$



The correlation is significant and moderate positive ($r=.346$, $p=.031$). As job shadowing improves, mentoring tends to improve. This is educationally important despite moderate magnitude. In practical terms, teachers who provide just-enough prompting, positive reinforcement, peer facilitation, and gradual fading are also likely to create safe classrooms, feedback loops, and aligned instruction. Both involve hands-on guidance, scaffolding, and learner-centered support. Raguindin and Ping (2025), Tripon (2025), Punzalan et al. (2025), and Campado et al. (2023) emphasized that inclusive teaching combines guided support, reflection, and flexible assistive strategies. The relationship aligns with Vygotsky's premise: scaffolding within ZPD requires both direct modeling (shadowing) and reflective coaching (mentoring). One without the other is incomplete—shadowing without mentoring risks dependence; mentoring without shadowing risks abstract advice without concrete support.

The moderate strength suggests other factors influence mentoring—workload, resources, self-efficacy, school climate. Future research should include mediators like teacher self-efficacy, availability of para-professionals, and administrative support. Nevertheless, strengthening job shadowing through training in task analysis, visual supports, and fading may yield spillover gains in mentoring, supporting 21st-century skill development.

Proposed Program. Based on gaps—task breakdown, visual aids, multisensory, tech, emotional vocabulary—the study proposes a program titled "SHADOW-MENTOR 21: Scaffolding Hands-on Autonomy and Development of 21st-Century Skills through Organized Work and Mentoring". Rationale, objectives, and matrix from original output are retained but enhanced: (1) Orientation and Needs Assessment using baseline profile, (2) Lesson Deconstruction Workshop on critical thinking/problem-solving, (3) Rephrasing for Understanding for communication, (4) Visual Aid Development Training for creativity, (5) Multisensory Teaching Demonstration for collaboration, (6) Microteaching and Peer Feedback for reflective practice, (7) Classroom Implementation and Coaching for transfer, and (8) Assessment of learner engagement and teacher performance. Each component embeds 21st-century skills and assistive technology.

Limitations. Purposive sample limited to one division, limiting generalizability. Self-report may inflate scores (social desirability). Cross-sectional design cannot infer causality. Future studies should include classroom observations,



learner outcome measures (independence scales, social participation), and longitudinal follow-up of program effectiveness.

Conclusion:

This study examined job shadowing and mentoring practices of SPED teachers in General Trias City as basis for building a program to develop 21st-century skills among SNED learners. The respondent profile revealed a mature, experienced, and academically qualified workforce predominantly aged 40–44, female, with graduate degrees, and 20–24 years of service, which is favorable for inclusive service delivery but also signals need for continuous updating to align with evolving inclusive policies.

Job shadowing was found to be highly practiced ($M=3.59$), strongest in positive reinforcement and peer interaction facilitation, reflecting strong behavior support and social inclusion orientation. However, academic scaffolding practices such as adapting worksheets, breaking down tasks with visual aids, and facilitating group participation were only somewhat practiced, indicating need for enhanced training in differentiated instruction and UDL.

Mentoring was somewhat practiced ($M=3.47$), strongest in creating safe classrooms, aligning instruction with frameworks, and establishing feedback loops, but weaker in multisensory engagement, technology leveraging, progress tracking, and socio-emotional vocabulary teaching. These weaker areas are precisely the domains central to 21st-century competencies—digital literacy, metacognition, empathy, and communication.

Significant differences in both job shadowing and mentoring across age, sex, educational attainment, and length of service underscore that personal and professional characteristics shape practice. Mid-career teachers (40–44, 20–24 years service) and MA/MS/MST holders reported higher practices, suggesting that ongoing graduate education and recent training enhance implementation, while very long tenure without refresher may reduce adaptability.

A significant moderate positive correlation between job shadowing and mentoring ($r=.346$, $p=.031$) demonstrates that these practices are complementary. Effective shadowing that provides calibrated prompting, reinforcement, and fading scaffolds effective mentoring that nurtures safety, reflection, and growth. Strengthening one may strengthen the other, supporting holistic learner development.

Based on findings, a program focusing on lesson deconstruction, rephrasing, visual aid development, multisensory demonstration, microteaching, and coaching is proposed to integrate 21st-century skills into SPED instruction. The program addresses identified gaps while leveraging existing strengths in behavior management and peer facilitation. It is recommended that Division offices provide differentiated professional development tailored to teacher profiles, allocate resources for visual and assistive technology, and institutionalize peer mentoring within ZPTD framework. Future research should triangulate self-report with observation and learner outcomes, and evaluate program impact on independence, social participation, and 21st-century skill acquisition among SNED learners.

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