

Original Research Article

Organizing Skill Training in Developing Individualized Education Programs for Special Education Students during Practicum and Internship

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Article History

Received: 20.05.2025

Accepted: 27.06.2025

Published: 01.07.2025

Journal homepage:

<https://www.easpublisher.com>

Quick Response Code



Abstract: This study aims to develop a theoretical framework and conduct experimental research on organizing training activities to enhance the skills of Special Education students in designing Individualized Education Programs (IEPs) during their practicum and teaching internships. Based on an analysis of theoretical foundations and practical requirements, the research proposes a 15-step procedure for implementing skill development activities tailored to the professional characteristics and training needs of Special Education students. The experimental phase was carried out in two cycles to evaluate the feasibility and effectiveness of the proposed intervention. The results demonstrated significant improvements in students' abilities to develop IEPs after the intervention, contributing to the enhancement of teacher training quality and the preparation of future educators capable of meeting the needs of students with disabilities in the context of current educational reforms.

Keywords: Individualized Education Program (IEP), Children with Disabilities (CWD), Professional Teaching Skills, Practicum and Teaching Internship, Preschool Special Education.

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I. INTRODUCTION

In current preschool special education teacher training programs, there are theoretical components related to the development of individualized education programs (IEPs). However, a more pressing issue is how to systematically organize the training of these skills for students throughout their three-year education. In practice, although some training institutions include skill development activities in internships and practicums, most tasks assigned to students primarily involve teaching based on pre-existing programs from the host institutions. There is little to no opportunity for students to develop the skills required to create individualized programs tailored to the unique needs of children with disabilities.

At many special education centers or inclusive education support centers, the curriculum is still largely based on mainstream programs rather than being developed based on the specific “problems” or needs of each child. Moreover, most teachers at these institutions lack the skills to develop individualized programs, even though they recognize the importance of creating IEPs for each child. Given the relatively young history of preschool special education teacher training institutions and care centers for children with disabilities in Vietnam, research on organizing and training students in this area

represents a practical and applicable direction. It contributes to improving training quality and supports both training institutions and educational facilities in meeting the growing demands of society.

This study aims to build a theoretical framework and conduct experimental research on organizing the training of individualized education program development skills for special education students during practicum and teaching internships.

II. LITERATURE REVIEW

According to Deborah Deutsch Smith (2003), an Individualized Education Program (IEP) consists of knowledge and skills tailored to a pre-defined goal, based on an assessment of a child's needs and abilities, aiming to promote positive development. This approach focuses on the child's changes in behavior, cognition, and skills. It is goal-centered, meaning that educators design the content, determine the teaching methods, and choose instructional formats to meet the specified goals.

Hlebowitsch, P. S. (2005) and Kelley A.V. (1977) argue that individualized programs for children with disabilities should not only aim for specific outcomes but also help children manage real-life situations and challenges. In other words, the goal is to

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help them become full members of society. This perspective aligns with our view of individualized education programs.

At the 2010 Vietnam–Japan Workshop on Developing IEPs for Children with Disabilities held in Ho Chi Minh City, many special education centers and teacher training institutions participated. The presentations highlighted the essential role of IEPs for children with disabilities and shared practical experiences in designing and implementing effective plans, as well as existing challenges.

Nguyen Thi Hoang Yen (2010) presented on “Assessment in Developing IEPs for Children with Special Needs in Vietnam,” proposing three types of IEPs suited to local conditions: IR-EP for children aged 2–5, focusing on rehabilitation services; IR-EP for children aged 6–9, prioritizing educational programs; IEP+Transition, integrating transition services such as grade promotion, life skills, and vocational training. She also proposed a 7-step process for developing IEPs: identifying issues, seeking support, defining the problem, determining suitable services, assigning the IEP, implementing the plan, and evaluating the outcomes. She emphasized the importance of early assessment for children with special needs. The research team from the Center for Special Education Training and Development at Hanoi National University of Education, with support from Japanese experts, piloted a 5-step assessment process in Da Nang: (1) screening; (2) diagnosis; (3) program planning; (4) progress monitoring; (5) comprehensive program evaluation. This process involved a multidisciplinary team and aimed to provide scientifically grounded and individualized interventions.

Phạm Minh Hạc (2001) defines teaching skills (TS) as the practical manifestation of pedagogical competence, along with pedagogical knowledge and techniques. He distinguishes TS from pedagogical competence, seeing the latter as a personality trait, while TS refers to specific actions. Nguyen Nhu An (1992) states: “TS is the ability to successfully perform a set of teaching actions or complex procedures by appropriately selecting and applying relevant knowledge, methods, and rules.” Other authors consider TS as the ability to master teaching methods and strategies to effectively carry out educational tasks. Based on teaching functions and the nature of the profession, A.V. Petrovsky (1992) proposed the following skills: (1) informational skills; (2) motivational skills; (3) developmental skills; (4) orientation skills. Prof. N.V. Kuzmina (1971), focusing on training students into educational specialists, defined five skill groups: (1) cognitive skills; (2) planning skills; (3) structural skills; (4) communication skills; (5) organizational skills. We categorize IEP development skills as belonging to the cognitive skills group.

Curriculum development is a continuous process comprising the following steps: situation analysis, general goal and objective setting, program design, implementation, and evaluation. Each step influences the next, forming an interconnected system that must be viewed holistically (Nguyen Thi Thu Hien, 2008; Ministry of Education and CRS, 2005; Petrovsky A.V., 1992).

We define the skill of developing educational programs as a deliberate action performed based on an understanding of educational programs. It addresses the needs and characteristics of individual children, aiming to bring about positive developmental changes. It includes the following sub-skills:

1. Observing and identifying potential developmental concerns in children;
2. Assessing and determining individual support needs;
3. Planning and designing IEPs;
4. Analyzing programs and designing appropriate instructional activities;
5. Evaluating and implementing IEPs for children with disabilities.

According to Dang Thanh Hung (2010), the skill of developing IEPs for children with disabilities should be viewed as an integrated structure, with foundational psychosocial elements. These include:

Needs: Expressed through internal motivation to identify and solve children's issues;

Will: Requiring perseverance and high effort, especially during assessment and planning;

Emotions: Reflected in professional commitment and responsibility, directly affecting program quality;

Psychomotor Skills: Demonstrated through technical proficiency;

Knowledge and Intellect:

Deep understanding of child psychology, types of disabilities, and IEP theory.

Training in IEP development skills involves students systematically practicing and mastering knowledge and skills related to understanding a child with disabilities, identifying their support needs and capacities, and determining appropriate goals and content for individualized educational support.

III. RESEARCH METHODOLOGY

The experimental (EXP) and control (CON) groups were selected to be equivalent in terms of number, learning conditions (teacher educators, centers for children with disabilities, students' cognitive level, and learning facilities). Teachers and preschool educators involved in the experiment were trained and

guided in the strategies and content of two modules on IEP development, as well as how to train these skills for students: Teacher educators were trained on the objectives, content, and methods for organizing the experiment based on the proposed research orientation; A detailed experimental plan was developed and discussed to ensure clear implementation; Necessary conditions and tools were prepared for teacher educators and practicum site supervisors; The experiment was implemented using the proposed procedures for training IEP development skills in students from the Special Education teacher training program. The experimental content integrated IEP development skills into the entire training process, especially during the practicum and internship phases, with key activities including: Observing and identifying “suspected” developmental signs in children; Assessing and determining the child’s individual support needs; Planning and designing individual education programs; Analyzing and designing tailored instructional activities; Evaluating and implementing the IEP for the child with disabilities.

Round 1 of the Pedagogical Experiment:

Included one experimental and one control group (Class 08 of Special Education, second-year students, 18 students per group). This small-scale implementation aimed to initially explore the suitability of the strategies.

Round 2 of the Experiment:

Involved the same two groups from Round 1, now in their third and second years respectively (Class 08 – third year, Class 09 – second year, 45 students per group, all with an academic average of 7.0 or higher). The experiment was expanded in scale and conducted at the National College of Education to confirm the feasibility and effectiveness of the proposed methods.

IV. RESEARCH RESULTS

4.1. Methods of organizing iep Skill Training for Students during Practicum and Internship

This method effectively fosters motivation, interest, and the need to understand and address children’s issues through IEPs. Students developed a strong sense of responsibility through observations, note-taking, evaluations, and planning individualized support. This period also represented a moment of genuine interest and desire to understand the child deeply to offer meaningful support.

It allowed students to master skills from selecting and applying tools to identify children’s needs, setting intervention goals, defining support content, and organizing and implementing the IEP during their long-term practicum (1.5 to 2.5 months). This duration fostered close relationships between students and children, enriching students’ emotional attachment to the profession.

As interns, students actively participated in classroom activities, independently organizing all teaching and care routines. After each observation and assessment, students learned to intervene and track further developments in the child. They experienced joy and fulfillment when their actions brought positive changes. Activities became more effective when based on concrete findings and were aligned with specific IEP content. Students became more proactive in prioritizing issues, determining relevant educational content, and making meaningful changes in children’s lives—while also validating the theory-based teaching they had previously studied.

4.2. Training Program Content

The training program for developing and implementing individualized education programs (IEPs) for children with disabilities was organized into 15 stages, integrated into two modules: **I.E.P 01** (Stages 1–6) and **I.E.P 02** (Stages 7–15).

Stages 1–3:

Focused on child engagement, observation, and assessment tool development. Students selected and planned appropriate tools, which were evaluated by instructors. If results were unsatisfactory, students had to repeat the process.

Stages 4–6:

Involved practical assessment. Students observed teachers conducting evaluations, then practiced in groups and individually under supervision. Only those who passed could progress to the next stage.

Stages 7–9:

Focused on identifying issues and setting intervention goals. Students compiled reports, identified children’s problems, and proposed practical, clear, and prioritized goals. If goals were inadequate, revisions had to begin again from Stage 7.

Stages 10–11:

Involved field observation. Students explored how IEPs were developed at the practicum site, drafted IEPs, and had them evaluated. If inadequate, they had to revise based on additional observations.

Stages 12–13:

Required students to officially design IEPs based on clearly defined goals and then select suitable content for implementation in care and educational activities.

Stages 14–15:

Included implementation and teaching assessment. Students conducted trial individual and group sessions based on their IEPs. Feedback was provided; if not satisfactory, students continued practicing until the standard was met.

This sequential design ensured that students not only mastered theoretical knowledge but also developed practical skills in creating and implementing IEPs for children with disabilities.

4.3. Results of the First Experimental Round

After the first round of experimentation, there was a notable difference in scores between the experimental (EXP) and control (CON) groups in terms of the expression levels of IEP development skills for children with disabilities. Students in the EXP group were quick, proactive, and highly engaged in all tasks, from observing and assessing children to designing, implementing, and evaluating IEPs. In contrast, students in the CON group required repeated reminders from instructors to complete tasks and demonstrated low motivation and incomplete task performance.

The results of the IEP skill assessment for both groups are presented in Table 4.12. The data show that all five IEP-related skills in the EXP group scored higher than those in the CON group. The average scores in the EXP group were:

- Observation and identification of developmental concerns: $M_{EXP} = 5.95$
- Assessment and determination of individual educational needs: $M_{EXP} = 6.16$
- IEP planning and design: $M_{EXP} = 6.06$

Skill: Observation and Identification of Developmental Concerns

After the intervention, EXP group students showed clear progress in recognizing various types of disabilities through observation. The proportion of students rated as “good” increased (9.4% vs. 6.3% in the CON group), and the “fair” level rose significantly (28.1% vs. 9.4%). Meanwhile, the “poor” rate decreased sharply in the EXP group (15.6%, unchanged in the CON group). EXP students observed more quickly and accurately, especially using developmental milestones and disability characteristics to identify problems. However, their skills in interviewing stakeholders and reviewing child records remained limited. Nevertheless, mastery of observation techniques helped EXP students more effectively determine IEP needs. EXP students were enthusiastic about designing observation checklists and collecting child data, reflecting both creativity and understanding of developmental stages and disability types. These tools also fostered peer exchange and learning. Conversely, CON group students worked slowly, lacked flexibility, and failed to identify developmental milestones or signs, leading to less focused and less effective subsequent steps.

Skill: Assessment and Identification of Educational Needs

The EXP group showed an increase in students achieving the “fair” level (25.0% vs. 9.4%), with a slight

improvement at the “good” level and a decrease in the “poor” category. They effectively carried out evaluation planning and result synthesis but still struggled with selecting and applying assessment tools. Practical experience and personal psychological factors influenced the quality of evaluations. EXP students actively engaged in hands-on activities, such as video analysis, role-play, and real-world interactions at disability education centers. They received consistent guidance from instructors on tool selection, observation, assessment, documentation, and data interpretation. This enabled them to identify specific child issues, choose appropriate tools, and understand the objectives of various assessment domains (e.g., cognition, language, behavior). They also showed care in behavior descriptions, avoided vague language, and left fields blank when unsure—planning to revisit them later. In contrast, CON group students had significant limitations: they often selected inappropriate tools, confused evaluation with teaching, and provided off-target support. Many lacked initiative, were easily distracted, avoided interaction with children, or failed to identify core issues. Their procedures were slow, fragmented, and inaccurate, and their observation reports were generally poor in content.

Skill: IEP Planning and Design

In the EXP group, the percentage of students rated at average and good levels increased significantly (62.5% average; no students remained at the poor level). These students quickly completed planning tasks and correctly identified key IEP components: phase-based intervention goals, content, activity distribution, teaching methods, and organizational formats. In contrast, CON group students struggled to define developmental goals. Their plans were often vague or generalized (e.g., “teach whatever the child doesn’t know”) and failed to target core difficulties. Plans lacked theoretical grounding and were not tailored to individual children’s specific characteristics and needs.

Skill: Instructional Analysis and Educational Activity Design

EXP students showed clear improvement: some reached the “good” level (9.4%), the “poor” level dropped by 12.5%, and the “average” category increased. They were able to define learner characteristics, select key content, and apply specific methods based on disability type. They also paid attention to organizational formats, teaching aids, and strategies for maximizing child participation. While the CON group showed minor improvements after the intervention, limitations persisted. Their instructional designs were still formulaic, lacked personalization, and did not align with children’s actual abilities (e.g., health, cooperation levels). Activities were designed as if for typically developing preschoolers, with little attention to the distinct needs of children with disabilities.

Skill: Evaluation of the Program and Implementation

EXP group students demonstrated clear improvement in program evaluation skills. The “good” category increased to 15.6%, while the “poor” and “average” categories decreased. Students learned to create evaluation forms after each lesson, compare outcomes with IEP goals, and identify unmet objectives. They actively exchanged feedback, asked questions, and engaged in peer and instructor dialogue after each session. The classroom atmosphere was dynamic, with strong student interest in peer work, and thoughtful discussions with suggestions to improve the program.

In contrast, CON group students were passive, only speaking when prompted. Their comments were often vague, unfocused, and failed to reflect actual program implementation. They struggled to observe, synthesize, propose adjustments, or justify their perspectives.

4.4. Results of the Second Experimental Round

All five IEP development skills of students in the experimental group (EXP) were higher than those in the control group (CON). The average score for the skill of observing and identifying children's problems in the EXP group was $M = 5.95$, and for assessing and identifying individual needs, it was $M = 6.03$.

Effectiveness of the Intervention in Developing IEP Skills for Children with Disabilities

The second-round experiment results demonstrated that students in the EXP group made significantly greater progress than those in the CON group in developing Individualized Education Program (IEP) skills for children with disabilities (CWD). In particular, for the skill of *interviewing – researching – identifying* (IRI), 12.5% of EXP students reached the “good” level, while none in the CON group achieved this. Additionally, 25% of EXP students reached the “fair” level, significantly higher than the 17.2% in the CON group, and the proportion at the “average” level decreased by 9.4%. EXP students were proficient in interacting with individuals involved with the child, analyzing records, and designing information-gathering tools such as questionnaires, observation forms, and journals. Many also created their own customized tools tailored to individual children. In contrast, CON group students were slower and showed limited flexibility and creativity in observation and data collection.

In the skill of *identifying individual needs* (IIN), 23.4% of EXP students reached the “fair” level, markedly higher than the 15.6% in the CON group. The percentage of students rated “good” in the EXP group increased by 10.9%, while those in the “poor” and “average” levels decreased. A notable strength of the EXP group was their ability to select and build more appropriate assessment tools (mean score = 6.14); however, summarizing assessment results remained a weakness (mean = 5.82). EXP students were highly

engaged in both video-based and live assessments at preschools. Some students even recorded video of children for group discussion. The involvement of teacher educators in guiding evaluations helped students become more confident, proactive, and genuinely interested in the children.

In contrast, CON students showed limited ability to accurately assess children's problems, lacked suitable tools, and struggled with collaboration, resulting in superficial and shallow assessments.

The skill of Instructional Design and Development (IDD)

Also showed clear differences. The proportion of EXP students reaching the “good” level was 7.8%, higher than the 3.1% in the CON group. The “average” level increased in both groups, while the “poor” level decreased in the EXP group. EXP students were agile in their approach, appropriately set learning goals, used logical reasoning in evaluations, clearly identified strengths and weaknesses, and applied observational results to tailor activities. In contrast, CON students lacked understanding of the children, struggled to identify their needs, and typically applied general curriculum templates without accounting for individual differences. For the skill of *lesson development and educational activity design* (LD&EAD), 10.9% of EXP students reached the “good” level, compared to only 3.1% in the CON group. The “poor” and “very poor” levels significantly declined in the EXP group. These students showed interest in linking educational and intervention goals. Their content and activity designs were aligned with the children's psychological development and built upon prior evaluation findings. While the CON group showed slight improvement, they still lacked deep understanding of the specific nature of teaching activities for CWD.

In terms of *IEP evaluation skills*, 14.1% of EXP students were rated “good” (compared to 6.3% in the CON group), with marked decreases in the “poor” and “very poor” levels. Their group discussion and feedback skills improved notably: “good” ratings increased by 11%, while “poor” ratings declined accordingly. EXP students became more proactive in identifying achieved or unmet objectives, actively exchanged ideas with peers and professionals, accepted feedback, and adjusted activities accordingly. Post-activity reflections helped students reassess their capabilities and draw practical lessons.

Conversely, CON students remained passive, responded only when prompted, and often gave vague, unfocused feedback that lacked alignment with intervention goals. They struggled with observation, synthesis, proposing adjustments, and articulating their reasoning.

In summary, all components of IEP development skills were significantly higher in the EXP group than in the CON group. This confirms the positive impact of the intervention on improving the professional competencies of special education students. In addition to quantitative data, feedback from teacher educators, preschool teachers, and students at the practicum sites further reinforced the findings. These evaluations aligned with those from the first round, emphasizing the critical role of teacher educators in mentoring, guiding, and providing in-depth practice opportunities for students.

Improving the quality of care and education for children with disabilities must begin with strengthening students' professional skills. This process not only requires active student participation but also demands that teacher educators invest in deeper instruction and practical training in designing and implementing individualized education programs—an aspect still often overlooked in many early childhood education institutions.

Finally, to verify the effectiveness of the intervention, we conducted an independent T-test to compare the EXP and CON groups. The test results, at a 95% confidence level, showed that the EXP group significantly outperformed the CON group across all skill components, with $p < 0.05$. This confirms that the experimental strategies were appropriate and effective, and the research hypothesis was validated.

V. CONCLUSION

The skill of developing individualized education programs (IEPs) for children with disabilities (CWD) must be cultivated alongside other professional teaching skills and should be developed directly by teachers within the context of their own classrooms. This skill represents the pedagogical artistry of each special education preschool teacher. Without the ability to develop IEPs, other professional competencies cannot be effectively formed. To successfully organize care and educational activities for CWD—as part of early intervention and inclusive education efforts—preschool teachers must possess IEP development skills. Therefore, training this skill is considered a critical task for teacher training colleges specializing in early childhood special

education. The ability to design and implement individualized education programs must be systematically taught and practiced throughout the practicum and internship phases at both teacher training institutions and preschools.

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Cite This Article: Nguyen Thi Thanh Huyen (2025). Organizing Skill Training in Developing Individualized Education Programs for Special Education Students during Practicum and Internship. *East African Scholars J Edu Humanit Lit*, 8(7), 266-271.
