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The Pedagogical Role of Teachers in Supporting Early Childhood Learners with Down Syndrome in Special Education

Rina Rahayu Siregar*, Dara Zulaiha, Julia Fika Arini, Jessica Aisah Sabrini, Dzakiyyah, Raden Nur Indah, Nessa Tresia, Lulu Aliyah, Nurul Kharisma, Salsa Fitriani

Universitas Sriwijaya, Indonesia
*Corresponding Author: rinarahayusiregar@gmail.com

Siregar, Zulaiha, Arini, Sabrini, Dzakiyyah, Indah, Tresia, Aliyah, Kharisma, Fitriani

Abstract

This qualitative case study examines the pivotal role of special education teachers in supporting the learning and social-emotional development of young children with Down syndrome (aged 5–6 years) in an early primary special school setting. Conducted at State Special School (SLBN) Ogan Ilir, data were gathered through structured classroom observations, semi-structured interviews with the primary teacher, and documentary analysis of instructional plans. Using the interactive qualitative analysis model by Miles and Huberman, the findings reveal that educators fulfill multi-dimensional roles as instructional facilitators, behavioral guides, motivators, and developmental mediators. Teachers adopt core curricula by employing individualized education strategies, concrete visual aids, task-analysed step-by-step instruction, and systematic repetition. Furthermore, educators cultivate inclusive classroom climates that nurture independence, functional life skills, and peer social interaction. The study showed that sustained educator-parent collaboration and adaptive learning facilities are vital components in optimizing developmental outcomes for learners with Down syndrome

Keywords: *Down syndrome, special education, inclusive learning, pedagogical strategy, early primary education*

INTRODUCTION

Down syndrome, or Trisomy 21, is a genetic condition caused by chromosome 21 nondisjunction during embryonic development. Individuals with Down syndrome present distinct physical and developmental characteristics, including mild-to-moderate intellectual disability, lower muscle tone (hypotonia), short stature, unique facial morphology, and delayed language acquisition. From a cognitive perspective, learners with Down syndrome frequently face challenges regarding short-term working memory, abstract reasoning, and expressive language processing. However, they often exhibit strong visual-spatial processing capacities, high social receptivity, and strong imitation skills.

In early childhood and early primary education (ages 5–6), learning approaches must be carefully adapted to accommodate these developmental profiles. Children with Down syndrome may demonstrate variable emotional regulation, stubbornness, or impulsivity when faced with tasks that exceed their current cognitive or communicative abilities. Conversely, when supported in structured, positive learning environments, they display strong social enthusiasm, warmth, and capacity for collaborative play. Consequently, building functional independence—defined as the capacity to perform daily life activities with minimal assistance—is a primary objective in special education settings.

The teacher serves as the central catalyst in creating adaptive, learner-centered educational environments. Paradigm shifts in special education have transitioned classroom instruction from rigid, teacher-dominated models to individualized, student-centered frameworks. In specialized primary education, teachers act not merely as transmitters of academic knowledge, but as facilitators, motivators, and behavioral guides who design concrete learning media, modify instructional pace, and support emotional regulation.

This study investigates the specific pedagogical roles and instructional strategies employed by special education teachers to support young learners with Down syndrome at SLBN Ogan Ilir.

RESEARCH METHODS

This study utilized a qualitative case study design to gain a contextualized understanding of teacher strategies and student-teacher interactions in a naturalistic special school environment.

Participants and Context

The study was conducted at the State Special Primary School (SLBN) Ogan Ilir. The primary research participants consisted of:

- The primary classroom teacher specializing in early childhood special education ($N = 1$).
- A 5-year-old Grade 1 student formally diagnosed with Down syndrome ($N = 1$).

Data Collection Techniques

Data were gathered through three integrated techniques:

1. **Classroom Observations:** Direct non-participant observations were conducted during daily instructional routines to document teaching adjustments, visual aid utilization, task prompting, and student behavioral responses.
2. **Semi-Structured Interviews:** In-depth interviews were conducted with the classroom teacher to explore instructional planning, individual learning challenges, behavioral intervention strategies, and parental engagement.
3. **Documentary Analysis:** Student progress reports, Individualized Education Plans (IEPs), functional learning materials, and classroom media were systematically examined to corroborate observational data.

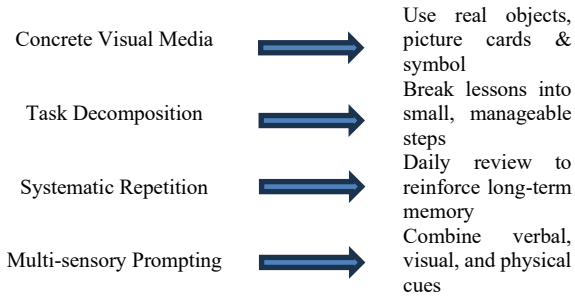
Data Analysis and Rigor

Qualitative data were processed through Miles and Huberman's interactive model, comprising data reduction, narrative display, and thematic conclusion drawing. Data validity was ensured through source triangulation (comparing teacher interviews with classroom observations and student records) and member checking.

RESULT AND DISCUSSION

Individualized and Concrete Pedagogical Strategies

The empirical findings at SLBN Ogan Ilir indicate that teaching young learners with Down syndrome requires highly structured, step-by-step, and concrete instructional methods. Because learners with Down syndrome process visual information more effectively than auditory cues, the teacher consistently paired verbal instructions with real objects, picture cards, and bodily gestures.



INSTRUCTIONAL ADAPTATION FRAMEWORK

- Step-by-Step Task Decomposition: Complex academic or self-care tasks were broken down into sequential, manageable steps. The teacher verified mastery of each step before advancing to the next.
- Systematic Repetition: Daily lesson structures emphasized consistent repetition (*drill and practice*) to reinforce

long-term memory retention and skill consolidation.

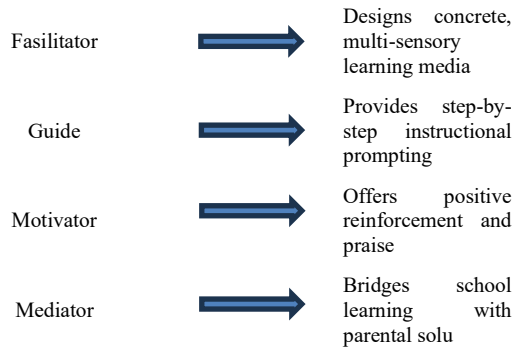
- Visual Literacy Approaches: In early reading instruction, structured visual methods (such as modified sight-word techniques) were utilized, allowing the child to recognize whole words through picture association before decoding phonetic elements.

Fostering Social-Emotional Development and Independence

Beyond academic goals, instructional focus was primarily placed on functional life skills and emotional self-regulation.

- Communication and Gestural Cues: To support language delays, the teacher utilized simple sentence structures accompanied by expressive facial expressions and hand gestures. This reduced student frustration and minimized resistive behaviors.
- Play-Based Learning: Learning routines incorporated structured play, singing, and physical movement. Play-based activities encouraged social turn-taking, peer interaction, and positive motor engagement.
- Functional Life Skills: The curriculum actively integrated daily living skills (e.g., self-feeding, organizing personal items, handwashing) to foster independence and reduce reliance on adult promptings.

MULTI DIMENSIONAL TEACHER ROLES



Home-School Collaboration and Supporting Factors

The study identified parent-teacher collaboration as a critical determinant of educational success.

- Home-School Continuity: The teacher maintained daily communication logs with parents to align home routines with school behavioral goals. Consistency across both environments significantly accelerated skill acquisition.
- Learning Facilities: The availability of adapted classroom spaces, play equipment, and sensory materials supported safe exploration and sustained attention.

CONCLUSION

This study demonstrates that educators fulfill essential multi-faceted roles as facilitators, guides, motivators, and mediators in early special education. Effective instruction for learners with Down syndrome aged 5–6 years requires an individualized, step-by-step approach grounded in concrete visual media, systematic task analysis, and consistent repetition. By balancing functional academic instruction with social-emotional support and maintaining strong partnerships with parents, educators empower young children with Down syndrome to achieve greater self-reliance, social integration, and developmental progress.

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