

MICRO-DIFFERENTIATED CURRICULUM MODEL BASED ON THE LEARNING PROFILE NEEDS OF STUDENTS WITH INTELLECTUAL DISABILITIES IN INCLUSIVE ELEMENTARY SCHOOLS

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Abstract

This study aims to formulate an initial curriculum micro-differentiation model based on learner need profiles for students with intellectual disabilities in an inclusive elementary school. The research was conducted at SDN 03 Girimulyo, Karanganyar, Central Java, using a descriptive qualitative approach with a case-study design. Data were collected through classroom observation, semi-structured interviews with teachers and school personnel, and document review. The data were analyzed through reflective needs analysis involving data reduction, categorization, interpretation, cross-source verification, and model formulation. The findings show that the school has provided inclusive access and direct classroom support, such as repeating instructions, reducing assignment volume, providing concrete examples, and giving individual assistance. However, these supports have not been organized into a written and sustainable system for mapping needs, setting essential learning targets, modifying content, adapting learning processes, varying learning products, and monitoring progress. The proposed model consists of six interrelated components: initial mapping, essential target setting, content modification, process adaptation, product variation, and progress monitoring. Theoretically, this model does not replace differentiated instruction theory; rather, it strengthens it by offering a micro-level operational framework that is more feasible for inclusive elementary classrooms with limited resources. Practically, the model helps teachers move from spontaneous assistance toward documented, realistic, and continuous inclusive services.

Keywords: Curriculum differentiation, inclusive education, intellectual disability, learner profile, primary school

INTRODUCTION

Inclusive education in elementary schools is often understood merely as the acceptance of children with special needs into regular classrooms. Although this understanding forms an important foundation, it is insufficient without corresponding curriculum and instructional adjustments. Students may occupy the same classroom, listen to the same teacher, and receive the same worksheets, yet still fail to experience equitable learning opportunities if their learning needs are not carefully identified and addressed. Inclusion should not end with physical presence; rather, it requires a learning system that provides meaningful opportunities for every child to understand the material, participate actively, and demonstrate progress according to their actual abilities.

Within the Indonesian policy context, inclusive education is strongly supported. Regulation of the Minister of National Education No. 70 of 2009 emphasizes that inclusive education provides opportunities for students with disabilities and/or exceptional intelligence and talents to participate in learning alongside their peers. The Guidelines for the Implementation of Inclusive Education further stress that schools must provide services that are responsive to student diversity, rather than merely opening access to school enrollment (Arriani et al., 2022). Consequently, curriculum, instructional strategies, classroom environments, assessment practices, and school communication patterns must be adapted to the actual needs of students

This perspective aligns with the principle of education for all. Choiriyah (2021) argues that education for children with special needs should be framed within respect for diversity and the rejection of discriminatory practices. At the global level, UNESCO (2020) also emphasizes that inclusion means recognizing diversity as an integral part of the education system rather than as a justification for separating children from shared learning experiences. Therefore, the more heterogeneous the classroom, the greater the need for teachers to implement flexible, measurable, and humane instructional approaches.

One relevant approach to addressing these needs is curriculum differentiation. Tomlinson (2014) explains that differentiation involves adjusting content, process, product, and learning environment according to students' readiness, interests, and learning profiles. Hall (2002) further highlights that differentiated instruction is grounded in recognition of variations in background knowledge, readiness, language, learning styles, and learner needs. Thus, differentiation does not mean creating entirely separate instruction, but rather organizing learning to become more responsive to classroom diversity.

Previous studies demonstrate the important role of differentiation in inclusive classrooms. King-Sears (2008) states that students with special educational needs can access the general curriculum when teachers employ responsive pedagogy. Rock et al. (2008), through the REACH framework, show that differentiation requires identifying student characteristics, evaluating curriculum demands, adjusting strategies, and monitoring outcomes. Meanwhile, Florian and Black-Hawkins (2011) position inclusive pedagogy as an effort to expand learning opportunities for all students rather than merely providing different treatment for certain learners. These studies share a common perspective in viewing student diversity as the basis for instructional decision-making.

In Indonesia, Minsih et al. (2024) highlight the importance of providing support for curriculum modification in inclusive elementary schools so that teachers are able to adapt curricula

to students' needs. Katoningsih et al. (2025) reveal gaps in cognitive readiness during the transition from early childhood education to elementary school, indicating the need for teachers to be more sensitive to differences in students' initial abilities. These studies consistently emphasize the importance of initial assessment, curriculum adaptation, and teacher assistance. However, most existing studies discuss differentiation and curriculum modification at the level of general concepts, policies, or program assistance. Few studies have formulated a small-scale operational model that is easy to document and can be directly implemented by classroom teachers for students with intellectual disabilities in inclusive elementary schools. The novelty of this study lies in the formulation of a micro-differentiated curriculum model that goes beyond general recommendations by offering a practical sequence consisting of needs mapping, determination of essential targets, material modification, process adaptation, product variation, and progress monitoring.

Theoretically, micro-differentiation in this study is positioned as an operational derivative of differentiated instruction at the level of teachers' daily instructional decisions. Tomlinson (2014) explains that differentiation includes adjustments to content, process, product, and learning environment based on students' readiness, interests, and learning profiles. Hall (2002) emphasizes that differentiation originates from recognizing variations in readiness, language, learning styles, and learner needs. Rock et al. (2008) further demonstrate that differentiation requires identifying learner characteristics, evaluating curriculum demands, adjusting strategies, and monitoring outcomes. Therefore, micro-differentiation is not understood as a separate new theory, but rather as the operationalization of differentiation theory on a small, concrete, and well-documented scale.

Based on this framework, curriculum micro-differentiation is defined as curriculum adjustment on a small-scale, practical level directly related to teachers' daily classroom practices. The term *micro* does not aim to diminish the significance of differentiation, but rather to indicate a more operational level of practice: selecting essential targets, shortening instructions, simplifying reading materials, reducing task volume, providing concrete media, offering multiple response options, and documenting meaningful small-scale progress. In this sense, micro-differentiation represents a practical extension of curriculum differentiation theory adapted to the realities of inclusive elementary classrooms, particularly when teachers face limitations in time, support services, and specialized resources.

The need for micro-differentiation becomes even more evident when schools serve students with intellectual disabilities. These students generally require gradual support in understanding instructions, remembering work procedures, reading questions, writing responses, and completing complex tasks. Such support cannot rely solely on sympathy or incidental assistance. Instead,

assistance must be systematically designed based on students' learning profiles so that teachers understand what students are already capable of doing, what obstacles they encounter, what forms of support are most effective, and what realistic targets can be achieved within a certain period.

Similar conditions were identified at SDN 03 Girimulyo, Ngargoyoso, Karanganyar. Based on observations, the school has demonstrated acceptance of students with special needs. Teachers attempt to involve all students in classroom activities and provide assistance whenever students experience difficulties. However, such assistance still largely depends on teachers' spontaneous initiatives. Adjustments such as repeating explanations, reducing the number of questions, providing concrete examples, or accompanying students during the initial stages of tasks have already been implemented, but these practices have not yet been systematically documented in the form of needs mapping, essential targets, task modification, and progress monitoring. This condition creates a gap between the school's inclusive spirit and the sustainability of its support system.

Two students became the focus of this study: one first-grade student and one fifth-grade student who demonstrated support needs in basic academic skills, instruction comprehension, and task completion. The first-grade student required single-step instructions, visual media, simplified tasks, and positive reinforcement. The fifth-grade student required simplified reading materials, more concise question wording, task division into several stages, and assessment methods not solely dependent on lengthy written responses. Differences in grade level resulted in different support needs, despite both students requiring differentiated instruction.

Based on this background, the research questions of this study are explicitly formulated as follows: (1) What is the current condition of inclusive services for students with intellectual disabilities at SDN 03 Girimulyo? (2) What are the learning profile needs of the focal students in Grade I and Grade V? (3) What gaps emerge between actual service practices and the principles of curriculum differentiation? and (4) How can an initial model of curriculum micro-differentiation based on the learning profiles of students with intellectual disabilities be realistically implemented by classroom teachers? Accordingly, the purpose of this study is to formulate an initial model of curriculum micro-differentiation based on the learning profiles of students with intellectual disabilities in inclusive elementary schools. Specifically, this article describes the condition of inclusive services, analyzes the needs of the two focal students, identifies service gaps, and develops a micro-differentiation model that can serve as a practical framework for classroom teachers.

METHOD

Research Design

This study employed a descriptive qualitative approach with a case study design. This design was selected because the study aimed to understand inclusive service practices within the school's natural context rather than to examine interventions experimentally. A case study approach allows researchers to explore the relationships among students' needs, the support provided by teachers, available instructional documents, and opportunities for improving curriculum services (Creswell & Poth, 2018; Yin, 2018).

Participants and Research Setting

The study was conducted at SDN 03 Girimulyo, Plawan, Girimulyo Village, Ngargoyoso District, Karanganyar Regency, Central Java, Indonesia. The school was selected because it has accepted students with special needs and demonstrated a genuine need to strengthen more systematic and documented curriculum services. The focal participants consisted of two students with intellectual disabilities from different grade levels: one first-grade student and one fifth-grade student. To maintain confidentiality, both participants were identified using pseudonyms, namely Subject A and Subject B

Participants were selected purposively based on four criteria: (1) the students studied in regular classrooms within an inclusive school environment; (2) teachers identified consistent learning support needs; (3) the primary difficulties were evident in instruction comprehension, task completion, basic academic skills, or support needs; and (4) the students remained actively involved in classroom activities so that curriculum adjustments could be observed within daily learning contexts. Participant selection was not based on clinical diagnosis, but rather on school information, teacher observations, and recurring educational support needs. Therefore, the term *intellectual disability* in this study is used within the framework of educational service needs rather than as a medical label for the students.

In qualitative research, the primary instrument is the researcher, as the researcher directly plans data collection, interprets contexts, analyzes meanings, and formulates findings. To ensure that the data collection process remained systematic and accountable, several research instruments were utilized, including an inclusive classroom observation sheet, interview guidelines for teachers and school staff, document study notes, and a student learning needs analysis format.

The observation sheet covered aspects such as clarity of instruction, use of concrete media, level of task difficulty, forms of teacher assistance, assessment flexibility, and progress documentation. The interview guidelines were used to explore teachers' experiences in supporting

students, strategies that had been attempted, challenges encountered, and the school's need for a simple differentiation framework. Document study notes were used to review instructional plans, samples of students' work, and available progress records. The learning needs analysis format was designed to connect students' strengths, observed barriers, effective forms of support, and the most essential learning targets.

Data Collection Techniques

Data were collected through classroom observations, semi-structured interviews, and document analysis. Observations were conducted in Grade I and Grade V classrooms to examine students' participation in classroom activities, teachers' instructional practices, the forms of tasks assigned to students, students' responses to assistance, and the types of support provided during learning activities. Interviews were conducted with classroom teachers and school personnel involved in supporting students with special needs. Document analysis focused on instructional materials, examples of student assignments, learning records, and other supporting documents available at the school.

For Subject A, data collection focused on the ability to follow short instructions, understand concrete examples, and complete simple tasks. For Subject B, data collection focused on reading and question comprehension, task initiation, following sequential stages of tasks, and demonstrating learning outcomes through simplified forms of responses. Interview data were used to complement observational findings, particularly in understanding the reasons teachers provided certain forms of support and the difficulties they experienced in documenting instructional adjustments.

Data Analysis Techniques

Data were analyzed using reflective needs analysis. First, the data were reduced by selecting information directly related to students' learning needs, teacher services, and curriculum adjustments. Second, the data were categorized into aspects of needs mapping, learning targets, instructional materials and tasks, learning processes, learning products, and assessment practices. Third, the data were interpreted by comparing the actual school conditions with principles of inclusive education found in the literature. Fourth, the findings were used to formulate the components of a curriculum micro-differentiation model appropriate to the school's needs.

The Data Validity

The validity of the data was strengthened through source and technique triangulation. Observational findings were compared with teacher explanations and available documents. Interpretations of the findings were also connected to inclusive education policies, differentiation theory, and studies concerning support for students with intellectual disabilities. In this way, the resulting model was not developed from a single source of data, but rather from the integration of field conditions and relevant theoretical foundations. The researcher also maintained the confidentiality of participant identities by using subject codes and avoiding descriptions that could reveal the students' personal identities.

RESULTS AND DISCUSSION

Inclusive Acceptance and the Documentation Gap

The observational findings revealed that SDN 03 Girimulyo has demonstrated an accepting attitude toward student diversity. Students with special needs learn alongside their peers in regular classrooms, and teachers attempt to involve them in daily classroom activities. This attitude represents an important initial foundation, as inclusive services cannot function effectively if schools still perceive diversity as a burden. Social acceptance within the classroom was also evident in teachers' efforts to continue providing opportunities for the focal students to participate in shared learning activities, although additional support was often required.

However, this acceptance has not yet been fully accompanied by a documented support system. Teachers have provided direct assistance, such as repeating instructions, approaching students when they begin to feel confused, reducing the number of tasks, or providing examples before students begin working. Although these forms of support are beneficial, they still largely depend on classroom situations and teachers' memory. No simple format was found that systematically summarized students' initial abilities, primary barriers, essential learning targets, forms of task modification, and records of progress. As a result, instructional adjustments have not always been implemented consistently over time.

These findings were reinforced by statements from the classroom teacher. The teacher explained, "When the student starts to get confused, I usually repeat the instructions and approach the student directly. Sometimes I reduce the number of questions because if there are too many, the student stops working halfway through" (Classroom teacher, interview). This statement indicates that the teacher has already implemented differentiated responses; however, these responses still operate at a spontaneous level and have not yet developed into a documented support system.

From a theoretical perspective, these findings demonstrate that physical access to regular classrooms must be accompanied by curricular access. According to Tomlinson (2014), teachers should not merely deliver the same material to all students, but must also adjust how students receive information, process information, and demonstrate learning outcomes. The findings at SDN 03 Girimulyo support this perspective because teacher assistance has already emerged in practice, yet it is not supported by a documentation mechanism that could make such support more consistent. Therefore, the primary issue is not the absence of teacher concern, but rather the lack of simple tools that can transform such concern into recurring and evaluable curriculum decisions.

This documentation gap is important because services for students with intellectual disabilities require continuity. When adjustments are implemented only spontaneously, teachers may lose track of which strategies are effective, which targets are overly demanding, and what forms of meaningful small-scale progress have already emerged. In dynamic elementary classrooms, teachers also face multiple simultaneous demands. Therefore, concise documentation should not be viewed merely as administrative work, but rather as a practical tool to support more focused instructional decision-making.

Learning Profile Needs of the Students

Subject A was a first-grade student who still required substantial support in basic academic skills. The student understood learning materials more easily when the teacher used pictures, flashcards, real objects, and direct demonstrations. Long instructions tended to confuse the student, while excessive tasks quickly reduced attention and engagement. The primary needs of Subject A included simplified learning targets, visual media, one-step instructions, short tasks, and positive reinforcement after successfully completing small parts of the assignment.

The classroom teacher explained, “For the first-grade student, if the instructions are too long, the student often stops and waits again. When pictures are shown and examples are provided first, the student can follow more easily” (Grade I teacher, interview). This statement indicates that Subject A’s difficulties were not simply related to unwillingness to learn, but rather to the mismatch between instructional delivery and the student’s processing capacity.

Subject B was a fifth-grade student who faced more complex academic demands. The primary difficulty was evident in understanding lengthy reading passages and questions. The student required more time to begin tasks and benefited when the teacher read the questions aloud, highlighted keywords, or divided assignments into several stages. The main needs of Subject B

included simplification of core materials, more direct language in questions, assistance at the beginning of tasks, and more flexible forms of assessment.

The Grade V teacher stated, “For the fifth-grade student, the child still needs help reading the questions. If the questions are too long, I usually read them aloud or highlight the keywords so the student knows which part needs to be answered” (Grade V teacher, interview). This explanation demonstrates that Subject B’s needs were more related to access to academic language and task sequencing rather than separation from classroom materials. The student was still able to participate in classroom learning themes when the essential content was simplified and response demands were made more realistic.

The differences between Subject A and Subject B indicate that differentiation cannot be implemented uniformly. Subject A required support in foundational learning skills, whereas Subject B required access to upper-grade classroom content through simplified language and sequential task structures. If both students were provided with the same general worksheets as their classmates without adjustment, their opportunities for success would be limited. Conversely, when tasks were adapted according to their actual abilities, both students were still able to remain connected to classroom learning activities. A summary of the learning profile needs of the focal students is presented in Table 1.

Table 1. Profile of the Needs of Focus Students

Subject	Grade	Observed Characteristics	Primary Needs
Subject A	I	Easily confused when receiving long instructions; better understands concrete examples; attention decreases easily when tasks are too many.	Simple targets, visual media, one-step instructions, short tasks, and positive reinforcement.
Subject B	V	Difficulty understanding reading texts and long questions; requires assistance to start tasks; benefits more from clear step-by-step instructions.	Simplified core material, concise question wording, assistance in reading questions, step-by-step tasks, and flexible evaluation.

Conceptually, the needs profile presented in Table 1 highlights the importance of initial mapping in differentiation. Carol Ann Tomlinson (2014) positions learning readiness as one of the key foundations for instructional adjustment. In the context of this study, learning readiness is not only understood as academic ability but also as the ability to follow instructions, initiate tasks, sustain attention, and demonstrate responses. Therefore, a micro-differentiation model should begin with a needs profile that is simple yet sufficiently comprehensive to guide teachers’ instructional decisions.

Service Gap Analysis

The analysis reveals four main gaps in service provision. The first gap lies in needs mapping. Ideally, there should be concise documentation of each student’s abilities, barriers, and required supports. In practice, teachers are generally aware of this information through their teaching experience; however, it is not systematically documented. When data are not formally recorded, they cannot serve as a strong basis for setting learning targets and instructional strategies.

The second gap concerns learning objectives. Some targets still follow general classroom demands, whereas students with intellectual disabilities require more essential and gradual targets. Essential targets do not imply lowering the dignity of learning but rather prioritizing the most important and achievable outcomes. For Subject A, targets may include following one-step instructions or matching pictures with words. For Subject B, targets may involve understanding the main idea of short texts or answering simple questions after the tasks have been simplified.

The third gap relates to instructional materials and tasks. Teachers occasionally simplify tasks, but this has not yet become a consistent practice. In fact, material modification can be carried out through simple strategies, such as reducing the number of questions, shortening reading texts, using more familiar vocabulary, providing concrete examples, or dividing worksheets into smaller sections. These adjustments make tasks more accessible without separating students from classroom activities.

The fourth gap lies in assessment practices. Assessment remains largely oriented toward uniform written outcomes for all students. For students with intellectual disabilities, progress often appears in small but meaningful forms, such as responding more quickly to instructions, maintaining attention for longer periods, requiring less assistance, or completing parts of tasks independently. Such forms of progress need to be documented so that teachers, schools, and parents can gain a more equitable understanding of students’ development.

The directions for improvement addressing these four gaps are presented in Table 2.

Table 2. Service Gaps and Directions for Micro-Differentiation

Aspect	Current Condition	Gap	Improvement Direction
Needs Mapping	Information about students’ needs is still based on teachers’ observations.	Data have not yet been formally documented as a basis for determining targets.	Develop concise needs profiles for each focus student.
Learning Objectives	Some targets still follow general classroom standards.	Targets are too broad or too demanding for the students.	Set essential learning targets for each period.

Aspect	Current Condition	Gap	Improvement Direction
Materials and Tasks	Simplification is applied occasionally.	Adjustments are not yet consistent.	Modify the number of tasks, language, examples, and task stages.
Assessment	Assessment still tends to be the same as for other students.	Small progress is not always captured.	Add individual progress monitoring.

Table 3. Relationship Between Field Findings, Needs, and Model Components

Field Findings	Needs	Model Components
Teachers have provided support but it has not yet been documented.	There is a need for simple, user-friendly records of students' needs.	Initial Mapping
General class targets are too demanding for focus students.	There is a need for realistic and gradual targets.	Essential Targets
Tasks are too long or too complex.	There is a need to simplify content, language, quantity, and task sequence.	Material Modification
Students are confused by lengthy instructions.	There is a need for step-by-step instructions, concrete examples, and initial guidance.	Process Adaptation
Assessment is still uniform.	There is a need for more flexible ways to demonstrate learning outcomes.	Product Variation
Small progress is not routinely recorded.	There is a need for progress records and follow-up actions.	Monitoring

Discussion: The Position of Micro-Differentiation in Differentiation Theory

The findings of this study indicate that the main issue in schools does not lie in the rejection of students with special needs, but rather in the insufficient mechanisms for translating students' needs into documented curricular decisions. This is important because differentiation theory requires teachers to adjust instruction based on students' readiness, interests, and learning profiles (Carol Ann Tomlinson, 2014). In inclusive classroom practice, these principles are often perceived as ideal but difficult to implement, particularly when teachers lack concise and practical formats. Therefore, micro-differentiation emerges as an operational solution to bridge theory and practice.

The model developed in this study is not intended to replace existing differentiation theory. Instead, it strengthens the theory by providing a more concrete, manageable, and contextually appropriate framework for inclusive elementary schools. While differentiation at the theoretical level emphasizes adjustments in content, process, product, and learning environment, micro-differentiation translates these principles into actionable teaching practices that can be implemented within daily lessons, weekly plans, or short instructional periods. In this way, micro-

differentiation functions as both a conceptual and practical tool to ensure that differentiation principles move beyond discourse into classroom practice.

These findings also reinforce the inclusive pedagogy perspective of Lani Florian and Kristine Black-Hawkins (2011), which emphasizes the expansion of learning opportunities for all students. Micro-differentiation does not separate focus students from regular classrooms; instead, it modifies their pathways toward achieving the same or related learning goals. For instance, Subject B continues to engage with Grade V reading themes, but the texts are shortened and questions simplified. Similarly, Subject A participates in Grade I activities, with instructions broken down into single steps and supported by visual aids. Thus, differentiation does not become a form of hidden segregation but rather a means of sustaining student participation within the classroom community.

From the perspective of students with intellectual disabilities, the findings highlight that learning success should be understood as a gradual process. Success is not always reflected in achieving the same academic outcomes as peers but may be demonstrated through improvements in following instructions, initiating tasks, maintaining attention, selecting appropriate responses, or completing smaller components of tasks independently. This principle is crucial, as overly uniform assessment practices may obscure meaningful student progress. Micro-differentiation offers an approach to document such incremental progress and use it as a basis for setting subsequent learning targets.

Practically, this model provides added value because it does not require teachers to produce extensive documentation. Teachers only need to prepare concise needs profiles, essential targets, modification strategies, product variations, and progress notes. This simplicity is particularly important in elementary school contexts, where classroom teachers handle multiple subjects and face substantial administrative demands. With a concise format, differentiation is more likely to become a routine professional practice rather than an additional burden.

Micro-Differentiated Curriculum Model

The micro-differentiated curriculum model developed in this study consists of six interconnected components: initial mapping, determination of essential targets, material modification, process adaptation, variation of learning products, and progress monitoring. These six components are understood as a cycle rather than a rigid administrative sequence, as students' needs may evolve after teachers implement certain strategies and observe students' responses in the classroom.

Initial mapping serves as the entry point of the model, as teachers need a concise overview of students’ strengths, barriers, and the types of support that are most helpful. Based on this mapping, teachers can determine realistic essential targets for a given learning period. For Subject A, for example, targets may focus on the ability to follow one-step instructions, recognize specific letters, or match words with pictures. For Subject B, targets may include understanding short texts, identifying main ideas, or answering simple questions after the tasks have been simplified.

Once targets are established, teachers modify instructional materials by selecting core content, simplifying language, reducing task volume, sequencing activities from the easiest level, and providing concrete examples. In Grade I, materials can be linked to pictures, word cards, and real objects. In Grade V, learning themes remain aligned with the general curriculum, but texts are shortened and questions are made more direct to ensure that students maintain access to essential content.

Process adaptation is carried out through brief instructions, modeling, visual support, extended time, and assistance at critical moments. For Subject A, teachers may provide step-by-step instructions, such as observing a picture, selecting a card, and attaching the answer. For Subject B, teachers may assist in reading questions, highlighting key words, and demonstrating the initial steps. These supports are not intended to replace students’ work but to provide pathways for them to begin tasks with greater confidence.

Variation in learning products allows students to demonstrate their understanding in ways that are most feasible for them. Subject A may respond by pointing to pictures, matching items, tracing, attaching, or answering orally. Subject B may respond orally, select simple answers, complete fill-in-the-blank tasks, or write short responses. In this way, assessment does not rely solely on the ability to read lengthy texts or produce complex written answers.

The final component is progress monitoring. Monitoring is conducted using a concise format that includes targets, initial conditions, progress, and follow-up actions. Notes such as “able to follow one-step instructions with one repetition” or “able to answer three out of five questions after text simplification” can help teachers identify patterns in student development. These simple records also assist teachers in determining whether targets should be maintained, adjusted, or advanced. The detailed description of the six model components is presented in Table 4.

Table 4. Components of the Micro-Differentiated Curriculum Model

Component	Main Content	Example of Practice
Initial Mapping	Students’ strengths, barriers, and learning needs.	The teacher records students’ responses to instructions, tasks, media, and assistance.

Component	Main Content	Example of Practice
Essential Targets	Short-term goals that are realistic and functional	Subject A follows one-step instructions; Subject B understands simplified questions.
Material Modification	Simplification of content, language, quantity, and sequence of materials.	Reading texts are shortened, the number of questions is reduced, and examples are made more concrete.
Process Adaptation	Adjustment of teaching methods and forms of support.	Step-by-step instructions, visual media, modeling, and additional time.
Product Variation	Different ways for students to demonstrate learning outcomes.	Pointing to pictures, matching tasks, oral responses, short written answers.
Monitoring	Records of progress and follow-up actions.	The teacher documents small improvements weekly or biweekly.

Implementation and Evaluation Plan

This model can be implemented over a period of three to six months. In the first month, teachers and the school coordinate and conduct an initial mapping of the abilities of two focus students. In the second month, teachers establish essential targets and prepare differentiation formats. In the third and fourth months, teachers begin implementing modifications in materials, processes, tasks, and assessments in priority subjects. In the fifth month, teachers conduct monitoring and adjust less effective strategies. In the sixth month, the school carries out an evaluation and develops follow-up actions.

If the school chooses a three-month cycle, the stages can be condensed into mapping, implementation, and evaluation. However, for students with intellectual disabilities, a six-month cycle provides more space for teachers to apply strategies gradually. The expected changes are not always reflected in significant increases in academic scores, but rather in improvements in engagement, independence, ability to follow instructions, and completion of simple tasks. Such indicators are more aligned with the principle of gradual development. A phased implementation plan is presented in Table 5.

Table 5. Three- to Six-Month Implementation Plan

Month	Activity	Person in Charge	Output
1	Coordination and initial mapping of two focus students' abilities.	Classroom teacher and school	Initial needs profile
2	Establishing essential targets and preparing differentiation formats.	Classroom teacher	Learning targets and service formats.
3-4	Implementing micro-differentiation in priority subjects.	Classroom teacher	Instruction with adapted tasks and assessments.
5	Monitoring progress and adjusting strategies.	Classroom teacher and parents	Progress records and follow-up actions.

Month	Activity	Person in Charge	Output
6	Model evaluation and development of further recommendations.	Classroom teacher and principal	Recommendations for service improvement.

The evaluation of the model’s effectiveness can be viewed from three perspectives. From the teacher’s perspective, success is indicated when teachers have clear essential targets, provide more appropriate tasks, give step-by-step instructions, use flexible assessments, and document student progress. From the students’ perspective, success is reflected when students are more engaged, more capable of initiating tasks, able to sustain participation for longer periods, and demonstrate progress in line with the targets. From the school’s perspective, success is evident when services no longer rely solely on spontaneity but begin to follow a simple, sustainable pattern.

Potential challenges include limited teacher time, the habit of using uniform assessments, and irregular communication with parents. The solutions include starting with the most prioritized targets, using a one-page format, selecting one or two subjects that most require adjustment, and maintaining brief weekly or biweekly progress records. With these strategies, the model remains realistic to implement in elementary schools.

Theoretically, this model strengthens differentiation theory by adding the dimensions of micro-scale application, simple documentation, and short monitoring cycles. Practically, it helps teachers move from spontaneous support toward more structured and well-documented services. Thus, micro-differentiation can serve as a bridge between inclusive policy, differentiation theory, and teachers’ real practices in the classroom.

CONCLUSION AND RECOMMENDATIONS

This study shows that inclusive practices at SDN 03 Girimulyo already possess social capital in the form of acceptance of students with special needs and teachers’ willingness to provide direct support in the classroom. However, acceptance and spontaneous assistance alone are not sufficient to ensure the sustainability of services. The main finding of this study is the gap between teachers’ practical knowledge of students’ needs and the absence of a simple system to document needs profiles, essential targets, material modifications, process adaptations, product variations, and progress monitoring. The synthesis of findings indicates that students with intellectual disabilities do not require a curriculum entirely separate from the regular classroom; rather, they need more appropriate entry points into the existing curriculum. For Subject A, these entry points include one-step instructions, concrete media, short tasks, and positive reinforcement. For Subject B, they

include simplified reading materials, direct question language, breaking tasks into several steps, and flexible forms of evaluation. The differences in the needs of the two subjects confirm that differentiation must be based on individual needs profiles rather than general assumptions about disability labels. The micro-differentiation model developed in this study consists of six interrelated components: initial mapping, setting essential targets, material modification, process adaptation, variation of learning products, and progress monitoring. The contribution of this model is not to replace differentiation theory, but to strengthen and operationalize it at the level of inclusive elementary classrooms. The model emphasizes concise documentation and the monitoring of small progress, making differentiation more feasible for classroom teachers without adding excessive administrative burden.

The recommendations of this study are directed at three stakeholders. First, classroom teachers are encouraged to use a one-page needs profile, set one to three essential targets per period, and record small progress on a weekly or biweekly basis. Second, schools are advised to provide short coordination time among classroom teachers, principals, and parents so that instructional modifications do not rely solely on individual teacher initiative. Third, further research is recommended to test the micro-differentiation model with a larger number of students, across grade levels, subjects, and schools with diverse characteristics. Future studies may employ action research designs, multiple case studies, or mixed-method approaches to examine the model's impact on student engagement, independence, and learning outcomes. Thus, micro-differentiation can be positioned as a reinforcement of differentiation theory within the context of inclusive education. This concept emphasizes that the success of inclusion is determined not only by policies of student acceptance, but also by teachers' ability to translate students' needs profiles into small, consistent, and well-documented instructional practices.

DAFTAR PUSTAKA

Arriani, F., Agustiyawati, Rizki, A., Widiyanti, R., Wibowo, S., Herawati, F., & Tulalessy, C. (2022). *Panduan pelaksanaan pendidikan inklusif*. Badan Standar, Kurikulum, dan Asesmen Pendidikan, Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.

Choiriyah. (2021). Education for all: Education for children with special needs and relation to anti-multiculturalism practices. *International Journal of Multicultural and Multireligious Understanding*, 8(8), 495-503. <https://doi.org/10.18415/ijmmu.v8i8.2956>

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.

- Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational Research Journal*, 37(5), 813-828. <https://doi.org/10.1080/01411926.2010.501096>
- Hall, T. (2002). *Differentiated instruction*. National Center on Accessing the General Curriculum.
- Katoningsih, S., Hastuti, I. B., Asmawulan, T., Wardhani, J. D., Widyasari, C., & Slamet, S. (2025). Cognitive-gap pada masa transisi pendidikan anak usia dini menuju sekolah dasar. *Jurnal Mutiara Pendidikan*, 5(1), 94-104. <https://doi.org/10.29303/jmp.v5i1.8688>
- Kementerian Pendidikan Nasional. (2009). *Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 70 Tahun 2009 tentang Pendidikan Inklusif bagi Peserta Didik yang Memiliki Kelainan dan Memiliki Potensi Kecerdasan dan/atau Bakat Istimewa*.
- King-Sears, M. E. (2008). Facts and fallacies: Differentiation and the general education curriculum for students with special educational needs. *Support for Learning*, 23(2), 55-62. <https://doi.org/10.1111/j.1467-9604.2008.00371.x>
- Lokmane, B., & Imad Eddine, M. (2022). *Differentiated instruction and inclusive education in EFL classrooms: The case of third year EFL students at Mila University Center*. Abdelhafid Boussouf University Center of Mila. <https://dspace.centre-univ-mila.dz/jspui/handle/123456789/2273>
- Minsih, Rusnilawati, Mujahid, I., Kaltsum, H. U., Tadzkiroh, U., Raisia, A., Uslan, & Triwahyuni, E. (2024). Pendampingan kurikulum modifikatif bagi guru di sekolah dasar inklusi. *Buletin KKN Pendidikan*, 6(1), 110-118. <https://doi.org/10.23917/bkkndik.v6i1.23453>
- Rock, M. L., Gregg, M., Ellis, E., & Gable, R. A. (2008). REACH: A framework for differentiating classroom instruction. *Preventing School Failure: Alternative Education for Children and Youth*, 52(2), 31-47. <https://doi.org/10.3200/PSFL.52.2.31-47>
- Sharma, B. U. (2024). *Differentiated instruction for inclusive learning environments*. 12(6), 135-139.
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). ASCD.
- UNESCO. (2020). *Global education monitoring report 2020: Inclusion and education: All means all*. UNESCO.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.