



## Utilizing Universal Design For Learning in Differentiated Learning at Inclusive Elementary Schools: A Qualitative Case Study

Hasanah Rosidah, Minsih\*

Elementary School Teacher Education, Muhammadiyah University of Surakarta, Sukoharjo, 57169, Indonesia

### ARTICLE INFO

#### Article history:

Received: 06 Jan 2026

Revised: 14 Feb 2026

Accepted: 17 Feb 2026

Published online: 25 Feb 2026

#### Keywords:

Differentiated Learning,  
Inclusive Elementary Schools,  
Students with special needs,  
Universal Design for Learning

\* Corresponding author:

E-mail: min139@ums.ac.id

#### Article Doi:

<https://doi.org/10.31258/jes.10.2.p.3195-3208>

This is an open access article under the [CC BY-  
SA](https://creativecommons.org/licenses/by-nc-sa/4.0/) license.



### ABSTRACT

Inclusive elementary education requires instructional approaches that accommodate diverse student needs, particularly for learners with special needs. This study aims to determine the utilization of Universal Design for Learning in differentiated learning at SD Muhammadiyah PK Baturan and to analyze its impact on students with special needs' participation and the quality of their learning experience. This study used a qualitative approach with a case study design. Data and data sources were collected from classroom teachers, regular students, and students with special needs. Data collection was conducted through interviews, observations, and documentation. Data validity was ensured through triangulation. Data analysis was conducted inductively, including data reduction, data presentation, and conclusion drawing. The results showed that the utilization of Universal Design for Learning in differentiated learning was proven to (1) improve accessibility, (2) participation, and (3) learning experiences for students, including students with special needs, through flexible, humanistic strategies that reduced learning barriers. The conclusion of this study is that the integration of Universal Design for Learning into differentiated instruction is an effective and sustainable approach to strengthening inclusive education practices in elementary schools.

## 1. Introduction

Inclusive education encourages the right of every student to receive fair and high quality educational services through learning environments that respect diversity and ensure equal learning opportunities for all students, including students with special needs, as emphasized in various global and national policies that underline access, participation, and learning services that are responsive to the diverse needs of students (Marantika et al., 2024; Minsih et al., 2025; Tarishah et al., 2025; UNESCO, 2020). In line with this perspective, several recent studies have affirmed

that the success of inclusive education is strongly determined by teachers' ability to design learning that is flexible, adaptive, and oriented to students' individual needs within heterogeneous classrooms (Büssing et al., 2019; Page et al., 2021). However, the implementation of inclusive education in Indonesia continues to face significant challenges, such as the limited competence of teachers in designing adaptive learning, limitations in resources, and learning practices that remain uniform and have not adequately addressed the individual needs of students with special needs (Minsih et al., 2024; Safarina & Sunardi, 2024; Salma et al., 2024).

This issue becomes increasingly real due to the limited training received by teachers regarding inclusive learning strategies, resulting in many teachers feeling unprepared and lacking confidence in teaching within inclusive classrooms, which ultimately affects the quality of educational services provided to students with special needs (Sharma et al., 2018; Woodcock et al., 2022). These challenges are further reinforced by findings indicating that elementary school teachers continue to experience difficulties in consistently and systematically implementing differentiation in learning, particularly when addressing the diversity of students' needs (Aminuriyah et al., 2023; Rosyida et al., 2022).

The majority of teachers in inclusive schools continue to use a one-size-fits-all learning approach, in which instructional strategies and learning materials are not adjusted to the individual needs of students, resulting in students with special needs frequently experiencing difficulties in accessing and understanding learning content (Griful-Freixenet et al., 2017). Within this context, Universal Design for Learning (UDL) offers a framework capable of removing learning barriers through flexible and proactive instructional design based on three core principles, namely Multiple Means of Engagement, Representation, and Action and Expression, which have been shown to enhance accessibility and student participation across diverse learning needs (Bray et al., 2023; Phelan et al., 2025). Research has also shown that UDL is not only beneficial for students with special needs but also enhances motivation, engagement, and conceptual understanding among regular students in heterogeneous classroom settings (Capp, 2020; Ewe & Galvin, 2023). Recent meta-analyses and systematic reviews further confirm that the consistent implementation of UDL contributes to improvements in academic learning outcomes, student engagement, and learning self-confidence at the elementary education level (Almeqdad et al., 2023; King-Sears et al., 2023).

The integration of UDL with differentiated learning that accommodates students' readiness, interests, and learning profiles constitutes a relevant strategy for optimizing learning services within inclusive classrooms, particularly at the elementary school level (Gheysens et al., 2023). The novelty of this research lies in the examination of the implementation of UDL, contextually integrated with differentiated learning practices, in Indonesian elementary schools through a case study approach that highlights the authentic experiences of teachers and students with special needs in the learning process. Although the effectiveness of UDL has been widely shown across various countries, empirical studies on the implementation of UDL in differentiated learning within Indonesian elementary schools remain limited, thereby necessitating in-depth research to understand how

---

UDL strategies can be practically implemented in differentiated learning in inclusive elementary school settings (Adeniran et al., 2025; Lindner & Schwab, 2021). Empirical research on integrating Universal Design for Learning with differentiated instruction in Indonesian inclusive elementary schools is still limited, especially using qualitative case study approaches. Therefore, this study aims to identify the utilization of Universal Design for Learning (UDL) in differentiated learning at SD Muhammadiyah PK Baturan and to analyze its impact on students with special needs' participation and the quality of their learning experience.

## **2. Methodology**

This study used a qualitative approach to explore in depth the utilization of UDL in differentiated learning at SD Muhammadiyah PK Baturan and to analyze its impact on students with special needs' participation and the quality of their learning experience. The research design adopted a case study. This design was selected because the study was focused on a single setting, namely SD Muhammadiyah PK Baturan, and aimed to gain a comprehensive understanding of the process of utilizing UDL within differentiated learning. The research subjects consisted of classroom teachers, regular students, and students with special needs who were directly involved in the inclusive learning process.

The subjects were selected purposively and comprised 1 classroom teacher, 20 regular students, and 1 student with intellectual disabilities. Data were collected through interviews, observations, and documentation. Interviews were conducted with classroom teachers, regular students, and students with special needs who were involved in the learning activities. Data collection was conducted over one month during the first semester of the 2025/2026 academic year through eight interviews and classroom observations focusing on teaching strategies and student participation.

Observations were conducted on learning activities that implemented Universal Design for Learning strategies within differentiated learning. Documentation was obtained from school records, including teaching modules and students' learning outcome reports. Data credibility was ensured through source triangulation by comparing information from multiple informants, namely teachers, regular students, and students with special needs, as well as technique triangulation by comparing findings from observations, interviews, and documentation to strengthen the results.

Data credibility was ensured by systematically comparing interview, observation, and documentation data across participant groups and time points. Data analysis was carried out inductively using the model proposed by Miles et al. (2014), which comprises three stages, namely data reduction, data display, and conclusion drawing, to generate a holistic understanding of the implementation of UDL in the context of differentiated learning in inclusive elementary schools.

---

### 3. Results and Discussion

#### Results

The research results indicate that the utilization of Universal Design for Learning in differentiated learning at SD Muhammadiyah PK Baturan (1) has a significant positive impact on the learning process and quality within inclusive classrooms. The application of UDL principles in an integrated manner with differentiation strategies (2) enabled learning to be conducted in a more flexible, adaptive, and responsive way to the diversity of students' learning needs. The findings further indicate that (3) the implementation of UDL not only enhanced the accessibility and engagement of students with special needs but also encouraged the active participation of regular students and fostered a more inclusive and supportive classroom environment. These impacts were reflected in improvements in students' understanding of the learning material, the achievement of learning objectives, more positive social interactions, and the development of students' self-confidence in expressing their learning abilities. This summary of findings is subsequently elaborated in greater detail through subsections on the implementation of UDL in differentiated learning, the participation and quality of students with special needs' learning experiences, and the impact of UDL utilization on learning quality, presented in tables and narrative explanations.

#### *Implementation of Universal Design for Learning in Differentiated Learning*

Based on the results of interviews with classroom teachers, the implementation of UDL was found to have been integrated into differentiated learning through the application of the three core UDL principles. The following table 1. implementation of UDL in differentiated learning presents the findings related to the implementation of UDL in differentiated learning at SD Muhammadiyah PK Baturan.

Table 1. Implementation of UDL in Differentiated Learning

UDL Aspect / Informant	Form of UDL Learning	Differentiated Learning	Description of Results
Multiple Means of Representation (ways of obtaining information) / AFK	Utilization of diverse media, including videos, reading materials, images, concrete teaching aids, and demonstrations	Delivery of content aligned with learning profiles (visual, auditory, kinesthetic)	Students felt the material was easier to understand, and students with special needs were able to follow the learning process without falling behind, because of support from visual and concrete media.
Multiple Means of Engagement (ways to enhance motivation and engagement) / AFK	Educational games, group work, and provision of rewards	Process of differentiation through varied activities aligned with the interests and learning readiness of regular students	Regular students stated that learning was more interesting and less monotonous, with increased participation. Students with special needs were able to take part in activities, although their level of

Multiple Means of Action and Expression (ways to demonstrate understanding) / AFK	Options for task formats such as oral presentations, posters, practical demonstrations, and written work	and students with special needs Differentiation of task products adjusted to students' abilities	activeness remained limited. Students with special needs showed understanding through nonverbal means, such as drawing. Regular students expressed their understanding through a range of task options.
---	--	---	--

Table 1 shows that the teacher has systematically applied all three UDL principles by integrating them into differentiation strategies. The implementation of multiple means of representation enables students to access learning materials through a range of sensory modalities that are aligned with their learning profiles. Multiple means of engagement are implemented through varied activities that are engaging and appropriate to students' interests and learning readiness. Meanwhile, multiple means of action and expression provide students with flexibility to demonstrate their understanding in ways that reflect their individual strengths.

***Participation and Learning Quality of Students with Special Needs***

Interviews and observations involving students with special needs revealed significant changes in their learning experiences following the implementation of UDL. The following table 2. results of observations and interviews with students with special needs presents findings on students with special needs' participation and learning quality.

Table 2. Results of Observations and Interviews with Students with Special Needs

Aspect / Informant	Interview Results	Observation Results	Description of Results
Access to Learning Materials / NR	Able to receive learning materials in the form of videos and images	Able to receive learning materials in the form of videos, images, and instructions delivered by the teacher using easily understandable language	More easily able to understand the learning content, not left behind, and experiencing reduced anxiety.
Participation / NR	Enjoys drawing activities	Appeared passive during learning activities, but was able to join regular classmates	Willing to interact with classmates despite remaining in a largely passive role
Interaction with Regular Students / NR	Feels happy when meeting classmates	Joined peers during classroom activities but tended to be alone outside the classroom	Interacts with regular peers but still tends to withdraw and be alone outside the classroom
Assessment / NR	Enjoys being asked to draw	Consistently completed assigned tasks	Confidence in completing tasks using their own preferred approach

Table 2 shows that students with special needs experienced improvements in material accessibility, participation, social interaction, and confidence in completing tasks. Providing learning materials in various formats, such as videos, images, and concrete teaching aids, enabled students with special needs to

understand the learning content better. Based on observations, students with special needs appeared more focused and were able to follow instructions effectively when directions were delivered in simple, clear language. In terms of participation, although students with special needs still tended to remain passive during learning activities, they had begun to show the courage to join regular peers in classroom activities. Social interaction also improved in the classroom, though outside it, students with special needs still tended to limit their social interaction.

### ***Impact of the Utilization of Universal Design for Learning in Differentiated Learning***

Data triangulation from interviews with teachers, regular students, and students with special needs, along with observation results, indicates a comprehensive impact of UDL implementation on learning quality. The following table 3. impact of universal design for learning on learning quality summarizes the findings related to the impact of UDL on learning quality.

Table 3. Impact of Universal Design for Learning on Learning Quality

Aspect	Interview Results
Achievement of Learning Objectives	The majority of students achieved competencies appropriate to their level, students with special needs mastered basic competencies, and overall learning mastery increased.
Classroom Climate	The majority of students achieved competencies appropriate to their level, students with special needs mastered basic competencies, and overall learning mastery increased.
Participation	Able to enhance interaction, promote collaboration, and strengthen social skills

Table 3 indicates that implementing UDL had a positive impact on three main aspects of learning quality. In terms of achieving learning objectives, the majority of students successfully attained learning competencies at their ability levels, with students with special needs mastering the predetermined basic competencies. Classroom conditions reflected a transformation toward a more inclusive, safe, and respectful environment, in which students were not afraid to ask questions or make mistakes, and in which bullying toward students with special needs did not occur. The participation aspect showed significant increases in student interaction, collaboration, and the development of social skills among both regular and special-needs students.

## ***Discussion***

### ***Implementation of UDL in Differentiated Learning***

The research results indicate that SD Muhammadiyah PK Baturan has successfully implemented Universal Design for Learning in differentiated learning in a systematic manner by applying the three core UDL principles. Implementing multiple means of representation enables teachers to present learning materials through a variety of media, such as videos, images, concrete teaching aids, and demonstrations, aligned with students' learning profiles. Providing diverse learning

media improves accessibility for all students to obtain information in ways that align with their respective learning styles, whether visual, auditory, or kinesthetic. These findings are in agreement with studies showing that the use of a variety of media and diverse representations of material helps students understand concepts more deeply and gradually improve their learning participation (Zahro et al., 2026). Different from several previous studies that emphasized the use of one dominant type of media in inclusive learning, the findings of this study show that the simultaneous combination of various forms of representation can provide broader access for students with diverse learning characteristics. Students with special needs, in particular, were greatly supported by the availability of visual media and concrete teaching aids, which enabled them to follow the learning process without feeling left behind compared to their regular peers. UDL can assist in creating learning environments that value diversity and enhance students' access to learning materials (Kusumastuti & Prabawati, 2024).

The principle of multiple means of engagement was implemented through educational games, group work, and rewards aligned with students' interests and learning readiness. This strategy reflects effective process differentiation, in which learning activities are tailored to students' characteristics to sustain their motivation and engagement. Other studies show that collaborative learning activities and active learning strategies can increase student participation and foster a sense of responsibility in the learning process (Syam & Arafah, 2026). Compared to previous studies that tended to focus student engagement exclusively on discussion or group work strategies, this study shows that learning engagement increases when activities are combined with educational games and options based on student interests. Regular students reported that learning became more interesting and less monotonous, while students with special needs began to participate in activities, although their level of activeness remained limited. UDL enhances student activeness and engagement through the flexibility of choices within the learning process (Wea et al., 2025). This approach is also consistent with the theory of the Zone of Proximal Development, which emphasizes the importance of providing support and learning activities aligned with students' levels of readiness to encourage optimal development (Vygotsky, 1978).

Implementing multiple means of action and expression gives students choices for expressing their understanding through various task formats, such as oral presentations, posters, practical demonstrations, or written work. This flexibility reflects product differentiation aligned with students' abilities, enabling each learner to express their competencies in line with their individual strengths. Previous findings also show that providing choices in assignment formats can increase learning independence and help students express their understanding according to their abilities and learning styles (Aurelya et al., 2026). Unlike previous studies that still placed written assessments as the main form of evaluation, the findings of this study indicate that varying forms of expression actually provide fairer opportunities for students with special needs to demonstrate their understanding authentically. Students with special needs can demonstrate understanding through nonverbal modes such as drawing, while regular students can explore their creativity through a variety of task options. UDL functions as a

---

proactive framework for removing learning barriers from the instructional design stage, rather than merely serving as a reactive adaptation to difficulties that emerge during learning (King-Sears, 2020). This approach is also consistent with the principles of differentiated learning, which emphasize the importance of providing students with choices in how they demonstrate learning in order to accommodate the diversity of their strengths and needs (Tomlinson, 2017).

### ***Participation and Learning Quality of Students with Special Needs***

The implementation of UDL significantly improved students' access to learning materials, engagement, and self-confidence among students with special needs. The provision of learning materials in various formats, such as videos, images, and concrete teaching aids, accompanied by simple and clear instructions, enabled students with special needs to understand the learning content more easily and to avoid feeling left behind compared to their regular peers. Observations indicated that students with special needs became more focused and were able to follow instructions effectively when the material was presented visually and delivered using simple language. The varied presentation of learning materials helps enhance learning access and student engagement in inclusive classrooms (Ewe & Galvin, 2023). Other studies show that flexible learning approaches that are responsive to student needs can improve learning readiness and help students understand the material more meaningfully (Langgari et al., 2026). Unlike several previous studies that reported low engagement among students with special needs despite the use of inclusive approaches, this study shows an increase in participation, albeit gradual and still requiring guidance. This improved accessibility reduces learning related anxiety among students with special needs, as it allows them to process information in ways that align with their cognitive capacities and sensory modalities.

Providing choices in the form of activities and tasks, such as drawing, presentations, or group discussions, encouraged students with special needs to participate more confidently and to express their understanding in ways that align with their individual learning styles. Interview results indicated that students with special needs felt more confident when they were able to choose learning approaches they preferred, particularly when they could demonstrate understanding through drawing rather than being required to produce lengthy written reports. The flexibility of learning within UDL enhances students' motivation and active participation in inclusive classrooms (Rosmi & Jauhari, 2022). Although students with special needs were still observed to be passive in some learning activities, they had begun to show greater confidence in joining their peers. Students were even diligent in completing assigned tasks, indicating an improvement in engagement compared to the period prior to UDL implementation.

From a social interaction perspective, students with special needs began interacting with regular peers in the classroom, although they still tended to withdraw when outside the classroom. The classroom environment became more supportive and emotionally safe, where students did not feel afraid to make mistakes or be mocked by their peers. The utilization of UDL had an impact on improving the social skills and academic participation of students with special needs in inclusive classrooms

---

(Mauliddiyah & Permata, 2025). The improvement in social interaction indicates that UDL based learning affects not only academic aspects but also the social-emotional development of students with special needs. From the assessment perspective, students with special needs demonstrated confidence in completing tasks in ways that matched their abilities. Alternative assessment options allowed students to demonstrate competence authentically, rather than solely through written work. UDL is effective in supporting students with special needs in achieving academic development through flexible assessment practices (Ziyana et al., 2025), validating the finding that variation in assessment methods provides students with fairer opportunities to demonstrate their mastery of competencies.

### ***Impact of UDL Implementation on Learning Quality***

The utilization of UDL in differentiated learning produced a comprehensive impact on the quality of students' learning experiences at SD Muhammadiyah PK Baturan. In terms of the achievement of learning objectives, the majority of students successfully attained competencies in accordance with their respective ability levels, with students with special needs mastering the predetermined basic competencies, and overall learning mastery showing improvement. The flexibility in how students achieve learning objectives allows each learner to develop according to their own pace and preferred learning approaches, thereby creating a more equitable learning system. UDL is effective in enhancing academic achievement and the quality of classroom interaction because it removes barriers to learning access (Almeqdad et al., 2023). This approach reflects a learning paradigm that does not require all students to reach learning objectives through the same means. Instead, it provides multiple pathways that enable each learner to attain competence through the routes most aligned with their individual needs.

The transformation of classroom conditions is among the most significant impacts of UDL implementation. The classroom environment became more inclusive, characterized by a climate of mutual respect in which students felt safe to ask questions and make mistakes without fear of being mocked or judged. Importantly, no bullying toward students with special needs was observed, indicating that inclusive norms had been internalized within the classroom culture. The application of UDL enhances students' emotional engagement and learning motivation by providing choice and creating a supportive classroom environment (Bray et al., 2023; Phelan et al., 2025). A safe and respectful classroom environment is essential for psychological safety, as it enables all students to take intellectual risks and participate actively in learning. UDL has a positive impact on accessibility and academic achievement among students with disabilities (AlRawi & AlKahtani, 2021; Wells, 2022), confirming that the inclusive environment fostered through UDL provides tangible benefits for students with special needs.

From a participation perspective, implementing UDL enhances interaction among students, collaboration, and the development of social skills among both regular and special needs students. Learning experiences that offer multiple ways to engage in discussions, group work, or project-based activities encourage students to become more active and confident. Previous studies have shown that the use of

---

interactive media and creative activities in learning can increase students' self-confidence and strengthen social interaction in group learning activities (Wulansari et al., 2026). Compared to previous studies that emphasized the academic impact of inclusive learning, the findings of this study show that changes in classroom culture and an increase in students' psychological sense of security are important factors that contribute to the success of learning. Students with special needs who were previously passive became more involved in classroom activities, while regular students developed empathy and the ability to work effectively with peers who have diverse abilities. UDL strengthens collaboration and solidarity among students within inclusive classroom contexts (Levey, 2021; Onyishi & Sefotho, 2020). This increase in participation and collaboration indicates that UDL-based learning not only benefits students with special needs but also enhances overall learning quality, fostering a classroom culture that is inclusive, democratic, and centered on the needs of every student.

Overall, this study's findings affirm that integrating UDL and differentiated learning can be an effective strategy for enhancing the quality of inclusive learning in elementary schools. UDL-based learning can accommodate student diversity while simultaneously improving learning readiness, participation, and academic achievement for all learners. This approach demonstrates that learning can take place in a more equitable, humane, and learner-centered manner that responds to the learning needs of every student. These findings further underscore that UDL represents a relevant approach for implementation in inclusive elementary classrooms, particularly when supported by continuous teacher professional development and the provision of diverse and adequate learning resources.

Theoretically, this study shows that UDL and differentiated learning can be synergistically integrated to strengthen the pedagogical framework of inclusive education. The integration of the two enriches our understanding of how proactive learning design can reduce learning barriers and increase the engagement of all students, including those with special needs. In practice, the application of UDL integrated with differentiated learning provides concrete guidance for teachers in designing learning that is more responsive to student needs. This approach helps create a learning environment that is more fair, flexible, and accessible, thereby supporting the realization of meaningful inclusive education for all students.

#### **4. Conclusion**

This study answers the research question by demonstrating that the utilization of Universal Design for Learning in differentiated learning at SD Muhammadiyah PK Baturan is effective in creating more inclusive, flexible, and meaningful learning experiences for all students, including those with special needs. The application of UDL principles through varied media, choices of learning activities, and alternative forms of assessment successfully reduced learning barriers, enhanced conceptual understanding, and strengthened students' motivation and participation. The classroom environment became more supportive and humane as teachers provided a safe space for students to try, ask questions, and express themselves without fear

---

---

of making mistakes. Students with special needs showed improved access to learning materials, greater confidence in social interaction, and increased self-confidence in completing tasks in accordance with their abilities. The success of this research indicates that integrating Universal Design for Learning into differentiated instruction can sustainably support inclusive classroom practices and improve the quality of learning experiences in elementary education. These findings reinforce previous research highlighting UDL's effectiveness in enhancing accessibility, participation, and academic achievement in inclusive classrooms.

## References

- Adeniran Sunday Ade, Osiesi, M. P., Okunade, A. I., Osiesi, O. A., Akinsuroju, O. E., Olayiwola-Adedoja, T. O., Oriola, B., & Oni, S. O. (2025). Differentiated Instruction For Improved Primary School Learners' Outcomes in Basic Science: A Mixed-Methods Study. *International Journal of Science Education*, 1–26. <https://doi.org/10.1080/09500693.2025.2524868>
- Almeqdad Qais I., Alodat Ali M., Alquraan Mahmoud F., Mohaidat Mohammad A., & Al-Makhzoomy Alaa K. (2023). The Effectiveness of Universal Design For Learning: A Systematic Review of The Literature And Meta-Analysis. *Cogent Education*, 10(1), 2218191. <https://doi.org/10.1080/2331186X.2023.2218191>
- AlRawi, J. M., & AlKahtani, M. A. (2021). Universal Design For Learning For Educating Students With Intellectual Disabilities: A Systematic Review. *International Journal of Developmental Disabilities*, 68(6), 800–808. <https://doi.org/10.1080/20473869.2021.1900505>
- Aminuriyah, S., Al Ma'ruf, A. I., Destya, A., & Minsih. (2023). A Case Study of Differentiated Instruction at Elementary School. *Al-Ishlah: Jurnal Pendidikan*, 15(4), 6227–6240. <https://doi.org/10.35445/alishlah.v15i4.3860>
- Bray, A., Devitt Ann, Banks Joanne, Fuentes Sergio Sanchez, Sandoval Marta, Riviou Katerina, Byrne Darren, Flood Margaret, Reale Jean, & Terrenzio Silvia. (2023). What Next For Universal Design For Learning? A Systematic Literature Review of Technology in UDL Implementations at Second Level. *British Journal of Educational Technology*, 54(3), 739–761. <https://doi.org/10.1111/bjet.13328>
- Büssing, A. G., Menzel, S., Schnieders, M., Beckmann, V., & Basten, M. (2019). Values And Beliefs As Predictors of Pre-Service Teachers' Enjoyment of Teaching in Inclusive Settings. *Journal of Research in Special Educational Needs*, 19, 8–23. <https://doi.org/10.1111/1471-3802.12474>
- Capp, M. J. (2020). Teacher Confidence To Implement The Principles, Guidelines, and Checkpoints of Universal Design For Learning\*. *International Journal of Inclusive Education*, 24(7), 706–720. <https://doi.org/10.1080/13603116.2018.1482014>
- Ewe, L. P., & Galvin, T. (2023). Universal Design For Learning Across Formal School Structures in Europe A Systematic Review. *Education Sciences*, 13(9). <https://doi.org/10.3390/educsci13090867>
-

- 
- Gheysens, E., Freixenet Júlia Griful-, & Katrien Struyven. (2023). Differentiated Instruction As An Approach To Establish Effective Teaching in Inclusive Classrooms. In *Inclusive Education* (p. 498). Springer. [https://doi.org/10.1007/978-3-031-31678-4\\_30](https://doi.org/10.1007/978-3-031-31678-4_30)
- Griful-Freixenet, J., Struyven, K., Verstichele, M., & Andries, C. (2017). Higher Education Students With Disabilities Speaking Out: Perceived Barriers and Opportunities of The Universal Design For Learning Framework. *Disability & Society*, 32(10), 1627–1649. <https://doi.org/10.1080/09687599.2017.1365695>
- King-Sears, M. E. (2020). Introduction To Special Series on Universal Design For Learning. *Remedial And Special Education*, 41(4), 193–196. <https://doi.org/10.1177/0741932520908342>
- King-Sears, M. E., Stefanidis, A., Evmenova, A. S., Rao, K., Mergen, R. L., Owen, L. S., & Strimel, M. M. (2023). Achievement of Learners Receiving UDL Instruction: A Meta-Analysis. *Teaching and Teacher Education*, 122, 103956. <https://doi.org/10.1016/j.tate.2022.103956>
- Kusumastuti, G., & Prabawati, W. (2024). Pemahaman Guru Sekolah Dasar Terhadap Universal Design For Learning Sebagai Strategi Belajar Yang Mendukung Pendidikan Inklusif. *Jurnal Inovasi Pendidikan dan Pembelajaran Sekolah Dasar*. <https://doi.org/10.24036/jippsd.v8i1.129594>
- Langgari, T., & Setya Rini, E. (2026). Analysis of The Impact of Gadget Use on The Learning Behavior of Fifth-Grade Students at SD Negeri 20 Palu. *Journal of Educational Sciences*, 10(1), 1326–1337. <https://doi.org/10.31258/jes.10.1.p.1326-1337>
- Levey, S. (2021). Universal Design For Learning. *Journal of Educational*, 116(2), 185–194. <https://doi.org/10.1177/002205742111031954>
- Lindner, K.-T., & Schwab, S. (2021). Differentiation and Individualisation in Inclusive Education: A Systematic Review and Narrative Synthesis. *International Journal of Inclusive Education*, 29(12), 2199–2219. <https://doi.org/10.1080/13603116.2020.1813450>
- Marantika, S., Fatkhurohmah, Pratidina, I., Minsih, & Widyasari, C. (2024). Pendekatan Inklusif Pada Anak Berkebutuhan Khusus Di Sekolah Dasar Untuk Menghadapi Tantangan Abad 21. *Berkala Ilmiah Pendidikan*, 4(3), 450–460. <https://doi.org/10.51214/bip.v4i3.977>
- Mauliddiyah, I., & Permata, S. D. (2025). Strategi Pembelajaran Untuk Anak Berkebutuhan Khusus Di Sekolah Dasar Inklusif. *Jurnal Pendidikan Inklusi Citra Bakti*, 3(1), 33–41. <https://doi.org/10.38048/jpicb.v3i1.4841>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Analisis Data Kualitatif: Buku Sumber Metode (edisi ke-3)*. Sage Publications.
- Minsih, M., Rusnilawati, R., Mujahid, I., Kaltsum, H. U., Tadzkiroh, U., Raisia, A., Uslan, U., & 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>
- Minsih, M., Saifudin, M. F., & Yasin, M. H. M. (2025). Evaluation of Differentiated Learning to Meet The Learning Needs of Students with Special Needs in Primary Schools. *InclusivEdu: Journal of Inclusion, Diversity & Disability in Education*, 1(1), 12–18. <https://journals2.ums.ac.id/inclusivedu/article/view/12614>
-

- 
- Onyishi, C. N., & Sefotho, M. M. (2020). Teachers' Perspectives on The Use of Differentiated Instruction in Inclusive Classrooms: Implication For Teacher Education. *International Journal of Higher Education*, 9(6), 136–150. <https://doi.org/10.5430/ijhe.v9n6p136>
- Page, A., Charteris, J., Anderson, J., & Boyle, C. (2021). Fostering School Connectedness Online For Students With Diverse Learning Needs: Inclusive Education in Australia During The COVID-19 Pandemic. *European Journal of Special Needs Education*, 36(1), 142–156. <https://doi.org/10.1080/08856257.2021.1872842>
- Phelan, D., Maguire, H., & Finnegan, C. (2025). Scoping Review of Universal Design For Learning Principles Embedded in Subjects in Secondary Education. *European Journal of Education*, 60(1), e70016. <https://doi.org/10.1111/ejed.70016>
- Rosmi, Y. F., & Jauhari Muhammad Nurrohman. (2022). *Universal Design For Learning Pada Pembelajaran Pendidikan Jasmani Adaptif Di Sekolah Inklusi*. <https://doi.org/10.36456/j-stand.v3i2.7180>
- Rosyida, A., Nurjanah, S., Wicaksono, A., Maulana, I., Fathoni, A., & Minsih, M. (2022). Optimalisasi Kebutuhan Belajar Siswa Melalui Pembelajaran Berdiferensiasi. *Elementa: Jurnal Pendidikan Guru Sekolah Dasar*, 4(2).
- Safarina, W., & Sunardi. (2024). Pendidikan Inklusif: Sistem Dukungan Pendidikan Inklusif Dan Langkah-Langkah Implementasinya Di Sekolah Dasar. *Jurnal Ilmiah Wahana Pendidikan*, 10(17), 821–825. <https://doi.org/10.5281/zenodo.13929180>
- Salma, N. D., Martono, N., & Primadata, A. P. (2024). Interaksi Siswa ABK Dan Non-ABK Di Sekolah Dasar. *Jurnal Basicedu*, 8(4), 2783–2794. <https://doi.org/10.31004/basicedu.v8i5.8091>
- Salsa Aurelya, N., & Rahman, A. (2026). The Use of Ice Breaking in The Jigsaw Cooperative Learning Model To Increase Learning Motivation of Fourth-Grade Students of SD Inpres 2 Tondo. *Journal of Educational Sciences*, 10(1), 1315–1325. <https://doi.org/10.31258/jes.10.1.p.1315-1325>
- Sharma, U., Aiello, P., Pace, E. M., Round, P., & Subban, P. (2018). In-Service Teachers' Attitudes, Concerns, Efficacy and Intentions To Teach in Inclusive Classrooms: An International Comparison of Australian And Italian Teachers. *European Journal of Special Needs Education*, 33(3), 437–446. <https://doi.org/10.1080/08856257.2017.1361139>
- Syam, R., & Arafah, K. (2026). Evaluation of the Hidden Curriculum in Students' Character Formation at CLC SMPT Nabawan, Sabah, Malaysia. *Journal of Educational Sciences*, 10(2), 2316–2333. <https://doi.org/10.31258/jes.10.2.p.2316-2333>
- Tarishah, S. D., Hikmah, N., & Dewina, Z. (2025). Strategi Pembelajaran Dan Kebijakan Sekolah Dalam Mendukung Pendidikan Inklusi Untuk Anak Berkebutuhan Khusus (ABK) Di Sekolah Dasar. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 10(01), 1264–1271.
- Tomlinson, C. A. (2017). *How To Differentiate Instruction in Academically Diverse Classrooms (3rd ed.)*. ASCD.
- UNESCO. (2020). *Global Education Monitoring Report 2020: Inclusion and Education All Means All*. UNESCO Publishing.
-

- Vygotsky, L. S. (1978). *Mind in Society: The Development Of Higher Psychological Processes*. Harvard University Press.
- Wea, D., Gaol, E. L., & Wolomasi, A. K. (2025). Implementation of Universal Design for Learning (UDL) in Inclusive Education: A Study of Primary and Secondary Education Units. *International Journal of Instruction*, 18(3), 531–548. <https://doi.org/10.29333/iji.2025.18327a>
- Wells, M. B. (2022). Student Perspectives on The Use of Universal Design For Learning in Virtual Formats in Higher Education. *Smart Learning Environments*, 9(27). <https://doi.org/10.1186/s40561-022-00218-6>
- Woodcock, S., Sharma, U., Subban, P., & Hitches, E. (2022). Teacher Self-Efficacy and Inclusive Education Practices: Rethinking Teachers' Engagement With Inclusive Practices. *Teaching and Teacher Education*, 117, 103802. <https://doi.org/10.1016/j.tate.2022.103802>
- Wulansari, F., & Markhamah, A. (2026). The Use of Animated Drawing Applications as a Medium to Grow Self-Confidence in Elementary School Students' Character Drawing Abilities. *Journal of Educational Sciences*, 10(1), 1338–1351. <https://doi.org/10.31258/jes.10.1.p.1338-1351>
- Zahro, F., Fatimatul, A., & Oktarini, W. (2026). Students' Perception of Debate Strategy as a Speaking Activity in EFL Classrooms. *Journal of Educational Sciences*, 10(2), 2334–2345. <https://doi.org/10.31258/jes.10.2.p.2334-2345>
- Ziyana, S., Rahmani, A., & Armelia, Y. (2025). Inclusive Learning Device Development Strategy Based on UDL and Differentiation for Children with Special Needs in Indonesia How to cite. In *International Disability Innovation Journal (IDIJ)* (Vol. 1, Number 1).

How to cite this article:

Rosidah, H., & Minsih. (2026). Utilizing Universal Design For Learning in Differentiated Learning at Inclusive Elementary Schools: A Qualitative Case Study. *Journal of Educational Sciences*, 10(2), 3195-3208.

---