

Exploring Secondary School Malay Language teacher's understanding and perceptions of differentiated pedagogy approaches in teaching and learning

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Abstract

This study investigates secondary school Malay Language teachers' understanding and perceptions of Differentiated Pedagogical Approaches (DPA) in teaching and learning. As the educational landscape shifts toward 21st-century competencies, teachers face increasing challenges in catering to the diverse needs of students in mixed-ability classrooms. This qualitative study aimed to explore how teachers conceptualise DPA and to identify the perceived benefits and implementation challenges. The research involved twelve secondary school Malay Language teachers from Sarawak, Malaysia, and employed semi-structured interviews, classroom observations, and document analysis. Thematic analysis was used to uncover key pedagogical insights. Findings indicate that teachers perceive DPA as a strategy to promote inclusive and equitable learning. Core themes that emerged include the refinement of daily lesson plans, the importance of sharing best practices, the role of peer mentorship, the development of collaborative teaching cultures, and the enhancement of teacher professionalism. Although DPA is seen as beneficial in promoting student-centred learning, challenges such as limited professional training, resource constraints, rigid curriculum structures, and increased workload were commonly cited. The study concludes by recommending targeted professional development, structured mentorship programmes, and school-wide collaboration to support effective DPA implementation. These insights provide practical recommendations for educators and policymakers striving to improve student engagement and academic outcomes while aligning with national education goals and global inclusive pedagogy trends.

Keywords: *Differentiated Pedagogical Approaches, Teacher Perceptions, Inclusive Education*

Introduction

The integration of 21st-century skills into education has become essential in preparing students for the demands of the Fourth Industrial Revolution (4IR) and Society 5.0. These competencies include communication, critical thinking, collaboration, creativity, citizenship, moral values, literacy in reading and numeracy, and digital fluency (Ong & Annamalai, 2024; Saniuk et al., 2022). To achieve the nation's vision of cultivating a competitive and future-ready generation, Malaysian teachers must not only master their subject matter but also continuously update their pedagogical practices, embrace educational reforms, and instil values that promote strong character development (Zamri et al., 2019). In this context, the National Education Philosophy affirms that education should be equitable and inclusive, ensuring no student is left behind.

Educational equity is fundamentally about delivering knowledge in a way that is just and inclusive. Rizal et al. (1992) argue that justice in education requires the fair distribution of learning opportunities, recognising learners' varied contexts and needs. As such, teaching should not be monolithic; instead, it must be responsive to students' individual differences—cognitive, emotional, linguistic, cultural, and social (Hashim et al., 2018). In Malaysian classrooms, particularly in Malay Language education, this diversity presents a persistent challenge for teachers. Students come from different primary school streams—such as Chinese (SJKC) and Tamil (SJKT) schools—and many enter secondary school with limited proficiency in the national language (Abdul &

Shamsudin, 2017; Janan et al., 2024). This discrepancy necessitates differentiated approaches to teaching and learning that are responsive to student readiness.

Differentiated Pedagogical Approaches (DPA) offer a solution to these challenges. DPA involves tailoring content, process, and learning products to students' needs, enabling all learners to access the curriculum at their own level (Tomlinson, 2014). In alignment with Malaysia's national goals—including the “Upholding the Malay Language” (MBM) policy and the Malaysia Education Blueprint 2013–2025—differentiated instruction has gained traction as a key strategy for inclusive and equitable education (MOE, 2013). The government's Initiative #108 for Malay Language Education Empowerment aims to ensure that 90% of students achieve a credit in SPM Malay Language by 2025 (Ramli & Yusoff, 2020). Supporting this aim, the Malay Language Pedagogical Excellence Programme (PKPBM) trains teachers in differentiated instructional strategies (Peng et al., 2022; Subri & Yaakub, 2021).

Prior to these reforms, differentiation in Malaysia largely took the form of “streaming” students based on academic ability—a practice now widely criticised. Studies show that streaming can reinforce social inequality and limit opportunities for low-performing students (Mansor et al., 2016). International evidence from PISA and TIMSS (Ayden-Ceran, 2021; Bai & Syed, 2019) confirms that early tracking exacerbates achievement gaps without improving overall performance. These findings have led to a pedagogical shift toward more inclusive, mixed-ability classrooms in countries like Finland and Canada—examples Malaysia is striving to emulate. As such, DPA has emerged as a strategic priority, though its practical implementation remains complex.

The body of literature on differentiated instruction suggests both benefits and limitations. Tomlinson and Jarvis (2024) explain that DPA supports diverse learners by adapting teaching to their interests, readiness, and learning profiles. Differentiated instruction also fosters motivation and confidence (Rashov, 2024) and has been linked to improved outcomes in language learning contexts (Najiba et al., 2014). However, other studies report significant implementation barriers. For instance, Sailer (2021) and Grenier & Moldoveanu (2011) found that while many teachers believe in the value of differentiated instruction, few apply it consistently due to time constraints, lack of training, and limited knowledge of pedagogical alternatives. In Malaysia, Fairuz et al. (2017) observed that even in gifted and talented programmes, differentiated teaching requires institutional support, strong pedagogical foundations, and collaborative planning.

Despite its theoretical appeal, DPA has not been universally adopted across Malaysian schools. Teachers often struggle with curriculum rigidity, insufficient training, and the pressures of large class sizes and administrative workload (Mazura & Wak, 2018). While Zamri et al. (2015) advocate that differentiated pedagogy can address the needs of all learners, widespread implementation has been uneven, particularly in language education. Moreover, some teachers remain unfamiliar with DPA concepts or lack confidence in applying them effectively (Omar & Jamaludin, 2024). These challenges underscore the need for a deeper understanding of teachers' lived experiences and perceptions regarding differentiated pedagogy.

In light of these concerns, this study aims to explore how secondary school Malay Language teachers in Sarawak conceptualise and implement DPA. It examines their perceptions of its benefits and challenges and provides empirical insights that can guide more effective training, school support systems, and national policy development. By investigating these issues qualitatively, the study contributes to the growing discourse on inclusive education and teacher professionalism in Malaysia's evolving educational landscape.

Conceptual framework

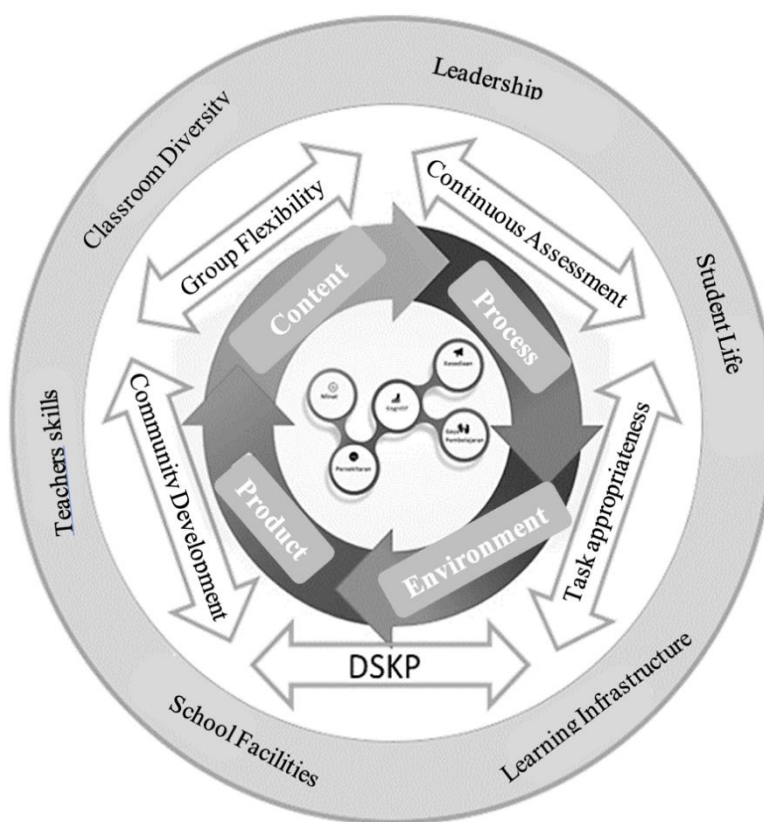
The conceptual foundation of this study is grounded in the principle that quality education must address the varied needs, abilities, and learning contexts of all students. Differentiated Pedagogical Approaches (DPA) are essential in realising Malaysia's aspiration for inclusive, student-centred education. DPA is defined as a teaching approach that adjusts content, process, and product to suit students' readiness, interests, and learning preferences (Tomlinson, 2014). The goal is to ensure every student—regardless of background, ability, or prior achievement—has access to meaningful and effective learning experiences.

The Malaysian education system has undergone significant reforms to embed differentiated teaching practices in line with the Malaysia Education Blueprint 2013–2025, the Upholding the Malay Language (MBM) initiative, and Initiative #108. These policies highlight the need for equitable instruction that fosters inclusion across diverse school settings. However, transitioning from traditional “streaming” practices to inclusive mixed-ability classrooms presents complex challenges (Ayden-Ceran, 2021; Bai & Syed, 2019; Mansor et al., 2016).

To support teachers in meeting these challenges, professional frameworks such as the ‘Onion’ Differentiated Pedagogy Model (Saunders et al., 2016) provide a practical guide for planning and implementing DPA. As illustrated in Figure 1, this model conceptualises DPA as a layered system, integrating four core instructional components—content (*kandungan*), process (*proses*), product (*produk*), and environment (*persekitaran*)—which are surrounded by professional domains such as teacher collaboration, leadership, assessment, and instructional planning. At the centre lies the curriculum (DSKP), which anchors differentiated instruction within national standards and learning outcomes.

Figure 1

The 'Onion' Differentiated Pedagogy Framework (adapted from Saunder et al., 2016)



In addition to structural models, the effective implementation of Differentiated Pedagogical Approaches (DPA) relies on two critical domains of teacher expertise: Content Knowledge (CK) and Pedagogical Knowledge (PK). These knowledge domains are foundational for planning and delivering instruction that is responsive to the diverse needs of learners in contemporary classrooms.

Content Knowledge (CK) refers to a teacher's deep understanding of subject matter, including the underlying theories, principles, and the ability to present concepts in a logical and meaningful way. According to Koehler and Mishra (2008), strong CK allows teachers to scaffold content appropriately, design tiered assignments, and apply inquiry-based strategies to support students at varying levels of proficiency. In the context of DPA, CK plays a vital role in ensuring that instructional materials are both accessible and challenging for all students. Teachers with limited CK, on the other hand, often rely heavily on rigid textbook materials and standardised lesson plans, which reduces the flexibility needed to support differentiated instruction (Akun & Mohamad, 2021). This can negatively affect student engagement and limit opportunities for personalised learning.

Pedagogical Knowledge (PK), meanwhile, encompasses teachers' understanding of how students learn, as well as mastery of instructional strategies, classroom management, and assessment practices. Effective PK enables teachers to apply varied instructional approaches, such as cooperative learning, differentiated assessments, flexible grouping, and formative feedback techniques (Tomlinson, 2017). In differentiated classrooms, PK is particularly important in managing the complexities of diverse learner profiles. Teachers who possess strong PK can reflect on student performance, adapt their lesson delivery, and make real-time instructional decisions to ensure learning objectives are met (Mansor et al., 2016; Hattie, 2019). Thus, the integration of both CK and PK is essential in supporting high-quality, inclusive education through DPA.

Research shows that combining CK and PK is necessary to deliver instruction that is not only differentiated but also developmentally appropriate and aligned with curricular goals (Darling-Hammond et al., 2020). However, studies also highlight barriers to implementation, including insufficient training, curriculum rigidity, large class sizes, and limited time for lesson planning (Mazura & Wak, 2018; Zamri, 2014). Many teachers report only a moderate level of DPA practice due to these constraints.

Moreover, there is a pressing need to address professional development gaps. Teachers require continuous training in DPA concepts and exposure to flexible, contemporary teaching strategies. Mazura and Wak

Chu Wok (2018) found that a lack of familiarity with DPA contributes to hesitancy in its classroom application. Fairuz et al. (2017) further noted that without administrative support and targeted training, even highly motivated teachers struggle to sustain DPA practices over time.

Research objectives

This study aims to explore and examine secondary school Malay Language teachers' understanding and perceptions of the Differentiated Pedagogical Approach (DPA) within the context of teaching and learning (Pengajaran dan Pembelajaran, PdPc). Specifically, the study seeks to:

1. Investigate how secondary school Malay Language teachers conceptualise and understand the principles of DPA in instructional settings.
2. Examine teachers' perceptions of the benefits and challenges associated with implementing DPA in Malay Language education.

Research questions

In alignment with the objectives, the study is guided by the following research questions:

1. How do secondary school Malay language teachers understand the Differentiated Pedagogical Approach (DPA) in their teaching practice?
2. What are teachers' perceptions of the benefits and challenges of implementing DPA in Malay language teaching and learning (PdPc)?

Methodology

This study employed a qualitative research design to explore secondary school Malay Language teachers' understanding and perceptions of the Differentiated Pedagogical Approach (DPA) in teaching and learning. Qualitative inquiry is appropriate for examining lived experiences, beliefs, and practices, allowing for a rich, in-depth understanding of the complex realities of classroom instruction. Guided by an interpretivist paradigm, this study sought to uncover how teachers construct meaning around DPA and how these perceptions inform their pedagogical decisions.

Research Design

A multiple-case study design was selected to investigate DPA implementation across diverse school settings. Case study research enables the researcher to analyse contemporary educational phenomena within real-life contexts, especially where the boundaries between phenomenon and context are blurred (Merriam & Tisdell, 2016). The design allowed for the collection of detailed, contextualised data from multiple schools in Sarawak, capturing the variation in DPA practices and challenges faced by teachers. The study followed the structured approach outlined by Saunders et al.'s (2016) "Onion" Research Framework, which supports coherence and depth in qualitative educational research.

Research Setting and Respondents

The study was conducted in twelve national secondary schools across six districts in Sarawak, Malaysia. These schools were selected based on consistent academic performance in the Sijil Pelajaran Malaysia (SPM) examination between 2018 and 2021. The selection included one International Baccalaureate (IB) World School, one Trust School, and ten Transformation Schools under the TS25 programme—each reflecting varying degrees of autonomy and reform implementation.

Participants consisted of twelve Malay Language teachers, identified through purposive sampling (Patton, 2002). All participants were subject specialists in Malay Language instruction and had attended DPA-related workshops between 2019 and 2022. Their teaching experience ranged from five to more than six years. Most held leadership roles such as lead trainers, head panel members, and Professional Learning Community (PLC) facilitators, thereby ensuring that participants were both knowledgeable and actively engaged in school-level pedagogical planning.

Data Collection Procedures

To ensure data triangulation and enhance validity, data were collected using three methods: semi-structured interviews, classroom observations, and document analysis. The semi-structured interviews explored participants' understanding of DPA, their instructional strategies, and the perceived challenges in implementing differentiation. Interviews were audio-recorded and transcribed verbatim with participant consent.

Classroom observations were conducted to gather real-time evidence of differentiated practices, teaching methods, and student engagement. Observation notes focused on teacher-student interactions, lesson pacing, differentiation in materials, and instructional adjustments made during lessons.

In addition, document analysis was carried out on lesson plans, teaching aids, students' work samples, and school policy documents. These artefacts provided insights into how DPA principles were applied or documented in instructional planning and implementation.

Data Analysis

Thematic analysis was employed to analyse the qualitative data. This process involved coding the interview transcripts, observation notes, and documents to identify emerging patterns and categories. Following Creswell's (2013) coding framework, the data were initially open-coded, then grouped into focused themes that aligned with the study objectives. These themes included teachers' conceptual understanding of DPA, perceived benefits, instructional strategies, and systemic or contextual challenges. The use of multiple data sources allowed for cross-verification of findings, enhancing the credibility and trustworthiness of the results. Member checking was also conducted with selected participants to confirm the accuracy and interpretation of the data.

Findings and discussions

This study explored the understanding and perceptions of secondary school Malay Language teachers regarding the Differentiated Pedagogical Approach (DPA) in Malaysian classrooms. The data, collected through semi-structured interviews, classroom observations, and document analysis, were organised thematically to reveal key insights. Two overarching domains emerged: (1) teachers' conceptual understanding of DPA, and (2) their perceptions of its benefits and implementation challenges. The following sections present the thematic findings and discuss their implications within the broader theoretical and policy context.

Teachers' Understanding of Differentiated Pedagogical Approaches

Analysis of the data revealed that teachers generally understood DPA as an inclusive instructional strategy designed to accommodate students' diverse needs, proficiency levels, and learning preferences. Five core themes emerged: (i) refinement of daily lesson plans, (ii) sharing of best practices, (iii) engagement with peer mentorship, (iv) collaborative teaching cultures, and (v) the development of teacher professionalism. Many teachers demonstrated an awareness of the need to adjust lesson plans based on students' readiness. They differentiated lesson objectives, instructional activities, and assessments to promote equitable access to learning. However, their ability to refine and customise lessons was often limited by time constraints and rigid curriculum requirements. This aligns with Hattie's (2019) findings that effective differentiation depends not only on teacher intention but also on structural flexibility and planning time.

The sharing of best practices through reflective discussions, Professional Learning Communities (PLCs), and informal peer consultations was identified as a means of improving instructional quality. Teachers emphasised the value of these exchanges in identifying effective strategies for mixed-ability classrooms. This mirrors the findings of DuFour and Eaker (1998), who highlight the power of collaborative cultures in enhancing pedagogical efficacy. Peer mentorship played a vital role in supporting less experienced teachers. Informants reported that guidance from experienced colleagues improved their confidence and skill in adapting instruction. This finding echoes Hobson et al. (2009), who found that mentorship enhances instructional adaptability and fosters professional growth.

A collaborative school culture was seen as an enabler of successful DPA implementation. Teachers described the roles of subject matter experts, excellent teachers, and subject panel heads as instrumental in sustaining differentiated practices. However, in some schools, the lack of structured collaboration limited the impact of these efforts. Lastly, teacher professionalism—characterised by open-mindedness, continuous learning, and shared values—was reported as essential for embracing DPA. Teachers noted that professional development programmes enhanced their understanding of differentiation, but also expressed a need for more targeted, sustained training opportunities.

These five themes and their related sub-themes are summarised in Table 1.

Table 1

Key Themes and Sub-Themes Reflecting Teachers' Understanding of Differentiated Pedagogical Approaches.

Category	Theme	Sub-theme
Understanding of Secondary School Malay Language Teachers on Differentiated Pedagogical Approaches	a) Refinement of daily lesson plans	1. Discuss student learning challenges 2. Teaching and Learning (TnL) focused on student learning outcomes at various skill levels (differentiated)
	b) Improving the quality of teaching and learning through sharing of best practices	3. Strengths and weaknesses of the daily lesson plan 4. Strengths and weaknesses of teacher's TnL
	c) Benefits of peer mentors	5. Peer mentors as facilitators 6. Peer mentors as subject matter experts
	d) Collaborative teacher culture	7. Role of subject matter expert teachers 8. Role of excellent teachers 9. Role of subject committee
	e) Enhancing teacher professionalism	10. Be open-minded 11. Think positively 12. Build self-confidence 13. Possess shared values

Source: Authors' thematic analysis based on interview data.

Teachers' Perceptions of DPA in Practice

Teachers generally viewed DPA as a beneficial strategy that enhances student engagement and learning outcomes. They believed that personalised instruction allowed students to progress at their own pace, increasing motivation and inclusivity. These perceptions are supported by Tomlinson and Jarvis (2024), who found that differentiated instruction fosters deeper engagement and stronger learner autonomy. The data further revealed important insights into the perceived benefits, challenges, and potential strategies for improving DPA practices in the classroom, as summarised in Table 2. Teachers consistently emphasised that DPA enhanced student engagement and learning outcomes. Personalised learning activities allowed students to work at their own pace, which contributed to increased motivation and inclusivity across different academic levels. This reinforces previous findings by Tomlinson and Jarvis (2024), who argue that differentiated instruction supports autonomy and active learning.

However, several challenges emerged from the interviews. First, time constraints and increased workload were repeatedly cited as major obstacles to planning and executing differentiated lessons. Teachers explained that developing multiple instructional materials for diverse learners requires significant effort, which is difficult to sustain alongside administrative responsibilities and large class sizes. Second, the rigidity of the curriculum and assessment system was seen as a structural barrier. Teachers expressed that the standardised national syllabus and emphasis on exam performance restrict their flexibility to apply DPA effectively. This rigidity discourages experimentation with differentiated tasks and makes it difficult to accommodate varying learning styles within the given instructional time.

Third, teachers reported a lack of specific, practical training in DPA. While many had attended general professional development workshops, these were not always aligned with classroom realities or focused on Malay Language instruction. This gap in training limits their confidence and readiness to adopt differentiated strategies. To address these issues, participants proposed several strategies for improving DPA implementation. Key recommendations included: reducing non-teaching workload to give teachers more planning time, offering subject-specific DPA training sessions, and enhancing administrative support. Teachers also suggested that greater flexibility in lesson planning and assessment policies would create a more enabling environment for differentiation. These themes are summarised in Table 2, which captures the intersection between teachers' classroom experiences and their strategic suggestions for enhancing DPA practice.

Table 2

Teachers' Perceived Benefits, Challenges, and Suggested Strategies for DPA Implementation.

Category	Theme	Key findings
Perceived benefits of DPA	Enhanced student engagement and learning outcomes	Personalized learning increases student motivation and inclusivity.
Challenges in implementing DPA	Time constraints and workload	Teachers face increased planning time; large class sizes hinder individual instruction.
Challenges in implementing DPA	Rigid curriculum and assessment policies	Standardized syllabus and exam pressure limit instructional flexibility.
Challenges in implementing DPA	Lack of training and support	Limited exposure to structured DPA training; professional development is not always aligned with practical classroom needs.
Strategies for effective DPA implementation	Improving support for DPA implementation	Reduce teacher workload, provide targeted training, and enhance administrative support for DPA implementation.

Source: Authors' summary based on cross-thematic analysis of qualitative data

Taken together, the findings illustrate that while teachers conceptually support differentiated instruction and see its value, its practical application remains inconsistent due to systemic and contextual barriers. The presence of professional cultures, mentorship, and collaborative structures can buffer some of these challenges, but without sufficient institutional support, DPA remains underutilised in many classrooms.

These insights are further understood through the lens of constructivist learning theory, which positions students as active agents in their learning. DPA aligns with this theory by promoting learner autonomy, differentiated pacing, and meaningful engagement. However, the absence of enabling structures—such as training, time, and flexible assessment—prevents the full realisation of constructivist principles in practice.

Conclusions and recommendations

This study underscores the importance of differentiated pedagogy in Malay Language teaching and learning, offering practical insights into how teachers conceptualize, implement, and adapt this approach in Malaysian secondary schools. The findings suggest that teacher professional development, collaborative teaching cultures, and flexible curriculum design are crucial for ensuring the effective and sustainable implementation of DPA. However, challenges such as time constraints, curriculum rigidity, and resource limitations must be addressed through policy reforms, structured training, and institutional support. Future research should continue to explore innovative strategies, technologies, and frameworks to further enhance differentiated instruction in language education. By strengthening DPA practices, Malaysia can move towards a more inclusive and student-centred educational system, ensuring equitable learning opportunities for all students.

References

- Abdullah, N., Roslan, S., Abdullah, M. C., & Maming, P. (2014). The impact of differentiated pedagogy on student motivation in learning Arabic in Malaysia. *Journal of Educational Studies*, 22(4), 118-126.
- Abdul Rasid Jamian, A. M. S., & Shamsudin Othman, N. N. (2017). Mastery of language grammar among non-Malay students. *International Journal of Academic Research in Business and Social Sciences*, 7, 981-995.
- Akun, J. C., & Mohamad, F. S. (2021). Technological Pedagogical Content Knowledge (TPACK) and the teaching of science: Determiners for professional development. *Studies of Applied Economics*, 38(3), 1-12.
- Aydin-Ceran, S. (2021). Evaluation of TIMSS 2019 and PISA 2018 Science findings in Turkey perspective. *Current Studies in Educational Disciplines*, 78.
- Bai, Y., Straus, S., & Broer, M. (2021). US National and State Trends in Educational Inequality Due to Socioeconomic Status: Evidence from the 2003-17 NAEP. AIR-NAEP Working Paper 2021-01. American Institutes for Research.
- Buletin Tapang. (2015). The International Baccalaureate World School in Sarawak: An Overview. Tapang Publications.

- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). SAGE Publications.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective Teacher Professional Development*. Learning Policy Institute.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97-140.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256-273. <https://doi.org/10.1037/0033-295X.95.2.256>
- Fairuz, S., Nadzri, A., & Mat, M. (2017). Differentiated teaching strategies for gifted and talented students in biology: An impact on motivation. *Journal of Science Education and Technology*, 36(3), 301-311.
- Fullan, M., & Pomfret, A. (1977). The implementation of curriculum innovation: A study of the adoption of the new secondary school science curriculum in Ontario. *Curriculum Inquiry*, 7(4), 281-303.
- Geertz, C. (1973). *The interpretation of cultures: Selected essays*. Basic Books.
- Grenier, M., & Moldoveanu, D. (2011). Differentiated pedagogy in multiethnic classrooms in Quebec, Canada: A constructivist approach to learning. *Journal of Educational Research and Practice*, 7(1), 30-45.
- Hidalgo-Camacho, C., Escudero, G. I., Villacís, W., & Varela, K. (2021). The Effects of Online Learning on EFL Students' Academic Achievement during Coronavirus Disease Pandemic. *European Journal of Educational Research*, 10(4), 1867-1879.
- Hashim, R., Yusoff, W. M. W., Hussien, S., Khalid, M., & Kamalludeen, R. (2018). Aplikasi pedagogi hikmah bagi pengajaran Bahasa Malaysia dan Bahasa Inggeris Abad ke-21. *Jurnal Pendidikan Malaysia*, 43(2), 37-47.
- Ismail, M. I. H., & Aziz, A. (2019). TS25 schoolteachers' perceptions of differentiated learning in diverse ESL classrooms. *Journal of Education and Social Sciences*, 13(1), 95-107.
- Janan, D., Tarmizi, M. H. M., Setyosari, P., Jamaluddin, N., Bakar, S. S. A., & Ying, L. C. (2024). Model Of Teaching Malay Language To Non-Native And Foreign Speaker. *Malaysian Journal of Learning and Instruction*, 21(1), 1-38.
- JPNS. (2015). *Transformation Schools 2025: Vision and Implementation in Sarawak*. Department of Education, Sarawak.
- Mansor, A. N., Maniam, P. P., Hunt, M. C., & Nor, M. Y. M. (2016). Benefits and disadvantages of streaming practices to accommodate students by ability. *Creative Education*, 7(17), 2547.
- Mati, S. R., & Zakaria, A. S. (2021, September). Penandaarasan antarabangsa PISA dan kesinambungan dalam pengajaran di peringkat pengajian tinggi. In *E-Prosiding Seminar Antarabangsa Islam Dan Sains*, September (pp. 399-412).
- Mazura, M., & Wak Chu Wok, A. (2018). Challenges in the implementation of differentiated pedagogy: A case study in Malaysian schools. *Journal of Educational Policy and Practice*, 29(2), 59-72.
- Ministry of Education Malaysia (MOE). (2013). *The Malaysian Education Blueprint 2013-2025*. Ministry of Education Malaysia.
- Mohamed, R., & Zulkafali, N. R. A. (2018). Reducing dropout rates through differentiated pedagogy: The role of tailored instruction. *Malaysian Journal of Education*, 32(1), 45-58.
- Mohammed Seni, M. S., & Jamalul Lail, S. A. (2012). The importance of quality teachers in achieving quality education. *Journal of Educational Studies*, 20(2), 34-45.
- Morgan, H. (2013). Differentiating instruction: A case study of a child with learning difficulties. *International Journal of Educational Research*, 41(2), 145-159.
- Nketsia, W., Opoku, M. P., Amponteng, M., & Mprah, W. K. (2024, May). Exploring the perceived knowledge of teacher educators and pre-service teachers on the differentiated instruction practices of teacher educators. In *Frontiers in Education* (Vol. 9, p. 1356675). Frontiers Media SA.
- Omar, Y., & Jamaludin, K. A. (2024). Use of Differentiated Pedagogical Approaches by Malay Language Teachers: Issues and Challenges. *International Journal of Academic Research in Progressive Education and Development*, 13(3), 1968-1980.
- Ong, Q. K. L., & Annamalai, N. (2024). Technological pedagogical content knowledge for twenty-first century learning skills: The game changer for teachers of industrial revolution 5.0. *Education and information technologies*, 29(2), 1939-1980.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). SAGE Publications.
- Peng, P., Zhang, Z., Wang, W., Lee, K., Wang, T., Wang, C., ... & Lin, J. (2022). A meta-analytic review of cognition and reading difficulties: Individual differences, moderation, and language mediation mechanisms. *Psychological Bulletin*, 148(3-4), 227.
- Ramli, R., & Mohd Yusoff, N. (2020). Self-efficacy and differentiated instruction: A study among Malaysian school teachers. *Universal Journal of Educational Research*.
- Rashov, O. (2024). Modern methods of teaching foreign languages. In *International Scientific and Current Research Conferences* (pp. 158-164).

- Rizal, R., Hairul, H., & Syed Muhammad Naquib Al-Attas, S. M. (1992). Equal access to knowledge and justice in education.
- Sailer, M., Stadler, M., Schultz-Pernice, F., Franke, U., Schöffmann, C., Paniotova, V., ... & Fischer, F. (2021). Technology-related teaching skills and attitudes: Validation of a scenario-based self-assessment instrument for teachers. *Computers in Human Behavior*, 115, 106625.
- Saniuk, S., Grabowska, S., & Grebski, W. (2022). Knowledge and Skills Development in the Context of the Fourth Industrial Revolution Technologies: Interviews of Experts from Pennsylvania State of the USA. *Energies*, 15(7), 2677. <https://doi.org/10.3390/en15072677>
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (7th ed.). Pearson.
- Setambah, M. A. B., Ariffin, A., Zaini, S. H., Jaafar, A. N. M., Negara, H. R. P., & Hanazono, H. (2025). Exploring the Need for Differentiated Instruction Frameworks in Enhancing 21st Century Skills in Mathematics Education. *Journal of Management World*, 2025(1), 216-222.
- Subri, M. R., & Yaakub, R. (2021). Pengetahuan pedagogi guru cemerlang bahasa Melayu dalam pengajaran komponen sastra: satu kajian kes. *Asian People Journal (Apj)*, 4(1), 50-64.
- Tiagarajah, R. (2021). *The Effect of Game-Based Application in Improving Students' Engagement Towards Learning Malay Language in Primary School* (Doctoral dissertation, Masters thesis, University of Teknologi Malaysia).
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). Pearson.
- Tomlinson, C. A., & Imbeau, M. B. (2010). *Leading and managing a differentiated classroom*. Pearson.
- Tomlinson, C. A., & Jarvis, J. M. (2024). Differentiation: Making curriculum work for all students through responsive planning & instruction. In *Systems and models for developing programs for the gifted and talented* (pp. 599-628). Routledge.
- Ummi, A., Chenshuai, W., Vijayaratham, P., Rajanthran, S. K., Girija, V., & Ravindran, T. (2024). Exploring Teaching Strategies Used by University Instructors to Enhance Student Engagement in Academic Subjects. *International Journal of Learning, Teaching and Educational Research*, 23(9), 543-559.
- Zamri, R. (2014). Teaching approaches and student success in the differentiated classroom: A Malaysian perspective. *Asian Education and Development Studies*, 3(4), 359-372.
- Zamri, R., *et al.* (2015). Differentiated pedagogy in Malaysian classrooms: Addressing diverse student needs. *International Journal of Multicultural Education*, 17(1), 50-63.
- Zamri, R., Ruslin, S., & Mohamed Amin, M. (2015). Differentiating instruction in diverse classrooms: The role of teachers.
- Zamri, R., Ruslin, S., & Mohamed Amin, M. (2018). Differentiated pedagogy and the future of learning in Malaysia .
- Zamri, R., Ruslin, S., & Mohamed Amin, M. (2019). Teachers' perspectives on differentiated pedagogy in secondary education.