

## DIFFERENTIATED LEARNING IN FIQH INSTRUCTION: A QUALITATIVE STUDY OF ADAPTIVE CLASSROOM PRACTICES AND STUDENT LEARNING EXPERIENCES IN AN INDONESIAN MADRASAH

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### Abstract

This study examines how differentiated learning is implemented in Fiqh instruction and how teachers and students experience its contribution to classroom participation and learning outcomes in Grade VIII at MTs Negeri Gowa, Indonesia. A descriptive qualitative design was used. Data were obtained through classroom observation, interviews, learning-outcome tests, and documentation of instructional planning and supporting records. The analysis followed data reduction, data display, and conclusion drawing, with source and method triangulation used to strengthen credibility. The findings indicate that differentiation was enacted through three main dimensions: content, process, and product. Content was adjusted to students' readiness through core concepts, enrichment activities, textual analysis, and case-based tasks. Process differentiation involved discussion, questioning, worship practice, collaborative tasks, and other varied learning activities. Product differentiation provided students with alternatives such as summaries, presentations, posters, and simple projects. The reported classroom evidence also indicated increased participation, motivation, confidence, and learning achievement during the implementation period. Teacher readiness, learning-needs mapping, and a supportive classroom climate facilitated implementation, whereas limited instructional time and heterogeneous student abilities constrained it. The study contributes contextual evidence that differentiated learning can support responsive Fiqh instruction, while the qualitative design does not permit a causal estimate of its effect on achievement.

**Keywords:** differentiated learning, differentiated instruction, Fiqh education, adaptive teaching, student engagement, madrasah

### Abstrak

*Penelitian ini mengkaji bagaimana pembelajaran yang dibedakan diterapkan dalam pengajaran Fiqh serta bagaimana guru dan siswa merasakan kontribusinya terhadap partisipasi di kelas dan hasil belajar di Kelas VIII MTs Negeri Gowa, Indonesia. Desain penelitian yang digunakan adalah kualitatif deskriptif. Data diperoleh melalui observasi kelas, wawancara, tes hasil belajar, serta dokumentasi rencana pembelajaran dan catatan pendukung. Analisis dilakukan melalui reduksi data, penyajian data, dan penarikan kesimpulan, dengan triangulasi sumber dan metode untuk memperkuat kredibilitas. Temuan menunjukkan bahwa diferensiasi dilaksanakan melalui tiga dimensi utama: konten, proses, dan hasil. Konten disesuaikan dengan kesiapan siswa melalui konsep inti, kegiatan pengayaan, analisis teks, dan tugas berbasis kasus. Diferensiasi*

*proses melibatkan diskusi, ajuan pertanyaan, praktik ibadah, tugas kolaboratif, dan berbagai kegiatan pembelajaran lainnya. Diferensiasi hasil memberikan alternatif kepada siswa seperti ringkasan, presentasi, poster, dan proyek sederhana. Bukti di kelas yang dilaporkan juga menunjukkan peningkatan partisipasi, motivasi, kepercayaan diri, dan prestasi belajar selama periode implementasi. Kesiapan guru, pemetaan kebutuhan belajar, dan iklim kelas yang mendukung memfasilitasi implementasi, sedangkan waktu pengajaran yang terbatas dan kemampuan siswa yang heterogen menjadi kendala. Penelitian ini memberikan bukti kontekstual bahwa pembelajaran yang dibedakan dapat mendukung pengajaran Fiqh yang responsif, sementara desain kualitatif tidak memungkinkan estimasi kausal terhadap dampaknya terhadap prestasi.*

**Kata kunci:** *pembelajaran yang dibedakan, pengajaran yang dibedakan, pendidikan Fiqh, pengajaran adaptif, keterlibatan siswa, madrasah*

## INTRODUCTION

Educational classrooms are inherently heterogeneous. Students enter instruction with different levels of prior knowledge, readiness, interests, motivation, learning histories, and ways of engaging with classroom tasks. A central challenge for teachers is therefore not simply to deliver the same curriculum to all learners, but to design learning opportunities that preserve common curricular goals while allowing appropriate variation in how students access, process, and demonstrate learning. Differentiated instruction addresses this challenge by proactively adapting instructional conditions to students' varying needs (Tomlinson, 2017; Smale-Jacobse et al., 2019). The approach is commonly operationalized through adaptations of content, learning processes, products, time, grouping, or learning environment rather than through a reduction of academic expectations.

These findings indicate that differentiation should be examined not merely as a label for a teaching method but as an enacted pedagogical process (Parsons et al., 2018; van Geel et al., 2019).

Formative assessment provides another mechanism through which teachers can identify students' current understanding and adjust instruction accordingly (Black & Wiliam, 2009; Shute, 2008).

This issue is particularly relevant to Fiqh instruction in Islamic madrasahs. Fiqh is not limited to the memorization of legal concepts; it also concerns students' understanding of religious reasoning, application of principles, and performance of practices in everyday life. Consequently, instructional activities may need to combine conceptual explanation, textual interpretation, discussion, demonstration, practice, and authentic tasks. Such variation can create opportunities for students with different levels of readiness to participate in a shared learning environment. The present study therefore focuses on differentiated learning in Fiqh at MTs Negeri Gowa, where the original study reported adjustments to content, process, and product according to students' readiness, interests, and learning characteristics.

Despite growing international literature, two gaps are relevant to the present study. First, much of the differentiated-instruction literature evaluates effects using quantitative or quasi-experimental designs, whereas qualitative evidence can illuminate how differentiation is actually enacted in everyday classrooms and how teachers and students experience the process. Second, evidence from subject-specific Islamic education contexts, particularly Fiqh at the madrasah level, remains comparatively limited in international discussions. A context-sensitive qualitative account can therefore complement outcome-oriented research by explaining the instructional mechanisms, enabling conditions, and practical constraints that shape differentiation. This study addresses these gaps by examining (1) how differentiated learning is implemented in Fiqh instruction, (2) what changes in participation and learning are observed or reported during implementation, and (3) what factors support or constrain the practice.

## **Conceptual Framework**

### **Differentiated learning as adaptive instruction**

Differentiated learning in this study is understood as planned and responsive adaptation of instruction within a shared classroom. The focus is not on creating a separate curriculum for every student, but on adjusting selected elements of instruction in response to differences among learners. Tomlinson (2017) identifies readiness, interest, and learning profile as important sources of information for planning differentiation. Smale-Jacobse et al. (2019) similarly describe differentiation as adaptations to learning content, process, product, time, or environment based on relevant student characteristics. This definition is useful for the present study because the reported classroom practices involve variation in the depth of content, learning activities, and forms of student work.

### **Differentiation, engagement, and learning**

Student engagement is also related to perceived competence, autonomy, and meaningful participation, which are central concerns in self-determination theory (Deci & Ryan, 2000). Feedback that is timely and usable can further support learning by helping students close gaps between current and desired performance (Shute, 2008).

### **Subject-specific and inclusive perspectives**

Differentiation should remain connected to disciplinary learning goals. Evidence from professional-development research suggests that differentiation practices can be stronger when teachers work within a specific subject domain rather than receiving only generic training (Kahmann et al., 2022). In Fiqh, this means that adaptation should preserve the integrity of Islamic legal concepts while varying the routes through which students encounter and demonstrate understanding. UDL provides a complementary inclusive perspective by emphasizing multiple forms of representation and expression and by explicitly addressing barriers to participation (CAST, 2024).

## **METHOD**

### **Research design and setting**

The study used a descriptive qualitative design to examine differentiated learning in Fiqh instruction at MTs Negeri Gowa, Indonesia. The original manuscript identifies the participants as the Fiqh teacher and Grade VIII students. The study was situated in the natural classroom context, allowing the researchers to examine instructional practices as they occurred rather than imposing an experimental treatment. This design is appropriate for describing implementation processes, contextual factors, and participants' experiences (Creswell & Poth, 2018; Merriam & Tisdell, 2016). The study is treated analytically as a bounded educational case because the inquiry centers on a specific instructional context and its naturally occurring evidence (Yin, 2018). The selection of a qualitative design also follows the principle that methodological choices should be aligned with the research questions and the type of evidence sought (Creswell & Creswell, 2018).

### **Participants and data sources**

Data were collected through four sources: classroom observation, interviews, learning-outcome tests, and documentation. Observation focused on how the teacher differentiated content, process, and product. Interviews explored planning, implementation, student responses, and implementation constraints. Learning-outcome tests were used as an additional source of evidence concerning students' academic achievement, while documentation included lesson plans and other supporting instructional records. The source manuscript does not report the exact number of student participants, the number of interview sessions, interview duration, test specifications, or a numerical summary of test scores; these details should be added in a future submission if they are available.

The combination of observation, interviews, tests, and documentation enabled methodological triangulation. Triangulation is particularly useful in qualitative inquiry because interpretations can be examined against evidence generated through different procedures and sources (Patton, 2015). For interview-based qualitative reporting, the study can also be strengthened by explicitly documenting participant characteristics, researcher positioning, interview procedures, and analytic decisions in line with COREQ and SRQR recommendations (Tong et al., 2007; O'Brien et al., 2014).

### **Data analysis**

The original study analyzed data through data reduction, data display, and conclusion drawing, followed by comparison across observation, interview, and documentary evidence. In the revised analytical presentation, these procedures are organized into a thematic logic: (1) familiarization with the dataset; (2) coding of evidence concerning differentiated content, process, and product; (3) grouping of codes into patterns of implementation, student response, enabling conditions, and constraints; (4) comparison across data sources; and (5) interpretation of the resulting themes in relation to the

conceptual framework. This approach is consistent with established qualitative data-analysis principles (Miles et al., 2014; Braun & Clarke, 2021).

### **Trustworthiness and research ethics**

Credibility was supported through triangulation of sources and methods. The revised manuscript recommends reporting additional procedures such as member checking, reflexive documentation, or peer debriefing if these were actually conducted. Trustworthiness should be demonstrated through transparent documentation rather than asserted solely as a methodological label (Lincoln & Guba, 1985; O'Brien et al., 2014). Ethical information, including institutional approval, informed consent or parental/guardian consent where applicable, student assent, confidentiality procedures, and data-protection practices, is not reported in the source manuscript and should be inserted from the actual research records before submission.

## **RESULTS AND DISCUSSION**

### **Differentiation of learning content**

The findings indicate that the teacher differentiated Fiqh content according to students' readiness. Students demonstrating higher readiness received enrichment activities involving deeper analysis of Islamic evidence and case-based problems, whereas students requiring more foundational support were directed toward core concepts and concrete examples. The practice reflects the principle that differentiation can vary the level of complexity and support while retaining shared learning goals (Tomlinson, 2017; Smale-Jacobse et al., 2019).

The observed pattern also illustrates an important distinction between differentiation and simple ability grouping. Differentiation requires instructional adaptation after differences are identified; merely placing students into groups does not, by itself, constitute differentiated instruction (Deunk et al., 2018). In the present case, variation in the depth and form of tasks suggests that grouping or readiness judgments were accompanied by changes in the instructional material provided to students.

### **Differentiation of learning process**

Process differentiation was reported through discussion, questioning, worship practice, collaborative assignments, and other varied classroom activities. Students who were more verbally active participated strongly in discussion, whereas students who responded more readily to experiential activity engaged enthusiastically in practice-oriented tasks. The findings suggest that variation in learning activity created multiple routes for participation rather than requiring all students to interact with the material in exactly the same way.

This pattern is compatible with UDL's emphasis on providing multiple means of engagement, representation, and action or expression (CAST, 2024). It is also consistent with sociocultural views of learning, in which participation in interaction and supported activity contributes to the development of knowledge and competence (Vygotsky, 1978). Nevertheless, the present qualitative evidence should be interpreted as an account of

observed and reported classroom participation, not as a controlled test of the causal effect of particular instructional activities.

**Differentiation of learning products**

Students were provided with alternative ways to demonstrate learning, including summaries, presentations, posters, and simple projects. This flexibility enabled students to communicate their understanding through different forms of expression. Such choices are theoretically consistent with learner-centered and UDL-oriented design because they recognize that students may demonstrate understanding through more than one representational or expressive pathway (CAST, 2024).

The source manuscript reports that students became more responsible for their assignments and that classroom participation increased when product choices were available. These observations can be interpreted through self-determination theory: opportunities for meaningful choice may support autonomy and engagement when accompanied by clear expectations and adequate structure (Deci & Ryan, 2000). The evidence does not, however, permit the stronger conclusion that product choice alone caused the reported changes.

**Reported changes in learning and engagement**

Across the observation, interview, evaluation, and documentary evidence described in the source manuscript, the researchers reported improvement in academic achievement, active participation, motivation, and confidence. Students were described as more willing to express opinions and more enthusiastic about classroom activities. These findings are compatible with research suggesting that adaptive and differentiated teaching can support academic and non-academic outcomes, although the magnitude and consistency of such effects vary across implementations (Bernard et al., 2019; Smale-Jacobse et al., 2019).

Importantly, the available manuscript does not provide numerical pre-test and post-test scores, effect sizes, confidence intervals, or a comparison group. Therefore, the phrase “increased learning outcomes” is retained as a reported qualitative finding rather than presented as a statistically demonstrated treatment effect. A future quantitative or mixed-methods study could test the magnitude of change directly.

**Cross-source synthesis of the findings**

| DIMENSION | OBSERVED PRACTICE                                                   | REPORTED STUDENT RESPONSE                             | INTERPRETIVE IMPLICATION              |
|-----------|---------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------|
| CONTENT   | Different depth of material; enrichment, analysis of evidence, case | Students could work at different levels of complexity | Readiness-informed content adaptation |

|                            |                                                                           |                                                                   |                                                           |
|----------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------|
|                            | studies, core concepts, concrete examples                                 |                                                                   |                                                           |
| <b>PROCESS</b>             | Discussion, Q&A, worship practice, collaborative tasks, varied activities | Higher participation and enthusiasm in different activity formats | Multiple pathways for engagement                          |
| <b>PRODUCT</b>             | Summary, presentation, poster, simple project                             | Greater choice, responsibility, and confidence                    | Flexible demonstration of learning                        |
| <b>ENABLING CONDITIONS</b> | Teacher readiness, needs mapping, supportive classroom climate            | More manageable adaptive instruction                              | Planning and classroom conditions matter                  |
| <b>CONSTRAINTS</b>         | Limited instructional time and heterogeneous abilities                    | Need for intensive classroom management                           | Differentiation requires time and organizational capacity |

## DISCUSSION

### Differentiation as a responsive pedagogical process

The central finding is that differentiation in the studied Fiqh classroom was not a single technique but a pattern of responsive decision-making. The teacher adjusted what students encountered, how they engaged with the material, and how they demonstrated learning. This corresponds closely to contemporary definitions of differentiated instruction as planned adaptation to relevant learner differences (Tomlinson, 2017; Smale-Jacobse et al., 2019). The findings therefore support a process-oriented understanding of differentiation in which teachers continuously interpret evidence about student readiness and respond through instructional design.

The finding is also important because differentiated instruction is sometimes reduced to a collection of classroom activities. The international evidence suggests that implementation quality depends on whether adaptations are meaningfully connected to student characteristics and learning goals (Deunk et al., 2018). The present case demonstrates this connection most clearly in the contrast between enrichment for students with greater readiness and foundational support for students who needed more scaffolding.

## **Relationship with learning outcomes and engagement**

The reported increase in academic achievement, participation, motivation, and confidence is directionally consistent with the broader evidence base, but the strength of the claim must remain proportional to the design. Smale-Jacobse et al. (2019) found generally positive but heterogeneous evidence in secondary education, while Bernard et al. (2019) reported benefits for adaptive and individualized teaching across K–12 settings. At the same time, Deunk et al. (2018) showed that some differentiation practices can produce mixed effects depending on the form of implementation. Accordingly, the present findings are best interpreted as contextual evidence of a plausible positive learning process rather than definitive proof of effectiveness.

The engagement dimension is theoretically plausible. When students receive appropriate challenge, opportunities for choice, and varied ways of participating, the classroom may better support perceived competence and autonomy (Deci & Ryan, 2000). Confidence may further reinforce persistence through self-efficacy beliefs (Bandura, 1997). The qualitative findings of greater participation and confidence can therefore be interpreted as potential mechanisms linking adaptive instruction with learning, although these mechanisms were not measured independently in the present study.

## **Why subject-specific adaptation matters in Fiqh**

A notable contribution of the study is its focus on Fiqh rather than a generic subject context. Differentiation is most meaningful when adaptations preserve the intellectual structure of the discipline. In Fiqh, this can involve moving between foundational concepts, textual evidence, legal reasoning, practical cases, and authentic religious practice. The subject-specific character of the adaptation is consistent with evidence that professional development and instructional adaptation can be more meaningful when situated within a particular subject domain (Kahmann et al., 2022).

The use of practical worship activities and case-based tasks also reflects the need to connect declarative knowledge with application. Rather than treating differentiation as lowering standards for some students, the present case suggests that students can pursue common learning objectives through different levels of scaffolding and different forms of activity. This principle is compatible with UDL's emphasis on reducing barriers without defining learner difference as learner deficiency (CAST, 2024).

## **Teacher readiness and implementation constraints**

Teacher readiness emerged as a key enabling condition. This finding is consistent with evidence that effective professional learning requires sustained opportunities to connect new knowledge with classroom practice (Darling-Hammond et al., 2017; Guskey, 2002; Fullan & Hargreaves, 2016). In Indonesian settings, teachers' experiences also suggest that differentiation requires practical judgment about learner diversity, planning, and classroom resources (Hasanah et al., 2022).

Time limitation was the most salient reported constraint. Differentiation can increase the planning and classroom-management demands placed on teachers, particularly when students vary widely in readiness. The literature similarly notes that teachers may experience difficulties in developing appropriate materials and deciding which adaptations are most suitable (Kahmann et al., 2022). Therefore, institutional support, collaborative planning, usable instructional resources, and sustained professional learning may be more consequential than simply instructing teachers to “differentiate.” This interpretation is also consistent with research showing that differentiation skills can be developed through structured professional learning, while teachers commonly report difficulties in planning, materials, assessment, and classroom management (Frèrejean et al., 2021; Gaitas & Alves Martins, 2017). Evidence from Indonesian teachers likewise emphasizes the importance of contextual knowledge and practical experience in developing differentiated instruction (Hasanah et al., 2022).

### **Methodological contribution and implications**

Methodologically, the study illustrates the value of combining observation, interviews, learning assessments, and documentation to examine instructional change in context. Qualitative evidence can reveal implementation processes that are not visible in outcome statistics alone. However, the study would become substantially stronger for an international journal if future reporting included a transparent participant profile, interview protocol, coding examples, researcher reflexivity, and a clear audit trail, following SRQR and COREQ principles (O’Brien et al., 2014; Tong et al., 2007).

For practice, the findings suggest five priorities for differentiated Fiqh instruction: (1) conduct systematic learning-needs mapping before or during instruction; (2) maintain common curricular goals while varying support and complexity; (3) prepare alternative learning processes rather than relying on a single method; (4) allow appropriately structured forms of student expression; and (5) allocate planning time and professional learning to sustain the approach. These implications are consistent with the broader evidence that adaptive teaching depends on deliberate instructional decisions rather than isolated classroom techniques (Bernard et al., 2019; Kahmann et al., 2022).

### **Limitations and Future Research**

Several limitations should be acknowledged. First, the study is situated in one madrasah and one Grade VIII Fiqh context, so transferability to other schools, regions, subjects, or age groups should not be assumed. Second, the manuscript does not report the exact number and characteristics of student participants, interview details, or the numerical results of the learning-outcome test. Third, because the design is descriptive qualitative and there is no control or comparison group, the study cannot establish that differentiated instruction caused the reported improvement in achievement. Fourth, the source manuscript does not provide detailed evidence of researcher reflexivity, coding procedures, or participant quotations, which limits the transparency of the interpretive process.

Future research should use longitudinal, quasi-experimental, or mixed-methods designs when the objective is to estimate the magnitude of change in learning outcomes. Such designs should also incorporate established evidence on teaching effectiveness and student achievement rather than relying on a single indicator of learning (Hattie, 2009).

## CONCLUSION

This study shows how differentiated learning was enacted in Grade VIII Fiqh instruction at MTs Negeri Gowa through adaptations of content, process, and product. The teacher adjusted content according to readiness, varied learning activities, and provided alternative forms of student work. The available qualitative evidence also reports greater participation, motivation, confidence, and learning achievement during implementation. Teacher readiness, learning-needs mapping, and a supportive classroom environment facilitated the practice, whereas limited instructional time and heterogeneous student abilities created implementation challenges.

The principal contribution of the study is contextual: it demonstrates how the general principles of differentiated instruction can be translated into subject-specific Fiqh teaching in an Indonesian madrasah. The findings should be interpreted as qualitative evidence of responsive classroom practice rather than as a causal estimate of instructional effectiveness. Strengthening future studies with transparent participant information, richer qualitative evidence, and quantitative outcome measures would provide a stronger basis for evaluating the scalability and educational impact of differentiated Fiqh instruction.

## REFERENCES

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Bernard, R. M., Borokhovski, E., Schmid, R. F., Waddington, D. I., & Pickup, D. I. (2019). Twenty-first century adaptive teaching and individualized learning operationalized as specific blends of student-centered instructional events: A systematic review and meta-analysis. *Campbell Systematic Reviews*, 15(1–2), e1017. <https://doi.org/10.1002/cl2.1017>
- Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5–31. <https://doi.org/10.1007/s11092-008-9068-5>
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE.
- CAST. (2024). *Universal design for learning guidelines version 3.0*. <https://udlguidelines.cast.org>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE.
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE.

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute.

Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: The human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)

Deunk, M. I., Smale-Jacobse, A. E., de Boer, H., Doolaard, S., & Bosker, R. J. (2018). Effective differentiation practices: A systematic review and meta-analysis of studies on the cognitive effects of differentiation practices in primary education. *Educational Research Review*, 24, 31–54. <https://doi.org/10.1016/j.edurev.2018.02.002>

Frèrejean, J., van Geel, M., Keuning, T., Dolmans, D., van Merriënboer, J. J. G., & Visscher, A. J. (2021). Ten steps to 4C/ID: Training differentiation skills in a professional development program for teachers. *Instructional Science*, 49, 395–418. <https://doi.org/10.1007/s11251-021-09540-x>

Fullan, M., & Hargreaves, A. (2016). *Bringing the profession back in: Call to action*. Learning Forward.

Gaitas, S., & Alves Martins, M. (2017). Teacher perceived difficulty in implementing differentiated instructional strategies in primary school. *International Journal of Inclusive Education*, 21(5), 544–556. <https://doi.org/10.1080/13603116.2016.1223180>

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice*, 8(3), 381–391. <https://doi.org/10.1080/135406002100000512>

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hasanah, E., Suyatno, S., Maryani, I., Al Badar, M. I., Fitria, Y., & Padmasari, L. (2022). Conceptual model of differentiated-instruction (DI) based on teachers’ experiences in Indonesia. *Education Sciences*, 12(10), 650. <https://doi.org/10.3390/educsci12100650>

Kahmann, R., Droop, M., & Lazonder, A. W. (2022). Meta-analysis of professional development programs in differentiated instruction. *International Journal of Educational Research*, 116, 102072. <https://doi.org/10.1016/j.ijer.2022.102072>

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE.

O’Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: A synthesis of recommendations. *Academic Medicine*, 89(9), 1245–1251. <https://doi.org/10.1097/ACM.0000000000000388>

- Parsons, S. A., Vaughn, M., Scales, R. Q., Gallagher, M. A., Parsons, A. W., Davis, S. G., Pierczynski, M., & Allen, M. (2018). Teachers' instructional adaptations: A research synthesis. *Review of Educational Research*, 88(2), 205–242. <https://doi.org/10.3102/0034654317743198>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). SAGE.
- Shute, V. J. (2008). Focus on formative feedback. *Review of Educational Research*, 78(1), 153–189. <https://doi.org/10.3102/0034654307313795>
- Smale-Jacobse, A. E., Meijer, A., Helms-Lorenz, M., & Maulana, R. (2019). Differentiated instruction in secondary education: A systematic review of research evidence. *Frontiers in Psychology*, 10, 2366. <https://doi.org/10.3389/fpsyg.2019.02366>
- Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms* (3rd ed.). ASCD.
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357. <https://doi.org/10.1093/intqhc/mzm042>
- van Geel, M., Keuning, T., Frèrejean, J., Dolmans, D., van Merriënboer, J., & Visscher, A. (2019). Capturing the complexity of differentiated instruction. *School Effectiveness and School Improvement*, 30(4), 451–467. <https://doi.org/10.1080/09243453.2019.1595476>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE.