



# Application of Scaffolding Method To Improve Learning Outcomes Of The Material On Praiseable Morals at MTS Masyarqul Anwar Mekar Jaya Tanjung Raja

Yuda Sutini<sup>1</sup>, MTS Masyariqul Anwar, Indonesia

## ABSTRACT

This study aims to analyze the application of the scaffolding method in improving learning outcomes of commendable moral material at MTS Masyarqul Anwar Mekar Jaya Tanjung Raja. The scaffolding method is a learning approach that provides gradual support to students until they are able to learn independently. In this study, the scaffolding method was applied through several stages, namely identifying students' proximal development zones, providing initial support, discussion and reflection, providing gradual challenges, and evaluation and reinforcement. The results of the study showed that this method was effective in improving understanding and application of commendable moral values, such as honesty, patience, and responsibility. In addition, this method also contributes to increasing students' learning motivation and building their confidence in making decisions based on moral values. Therefore, the scaffolding method is recommended to be applied in moral learning in order to form better student character.

 OPEN ACCESS

## ARTICLE HISTORY

Received: 17 Nov 2024

Revised: 27 Des 2024

Accepted: 5 Jan 2025

Published: 31 Jan 2025

## KEYWORDS

Scaffolding Method,  
Commendable Morals,  
Learning, Character  
Education

## Corresponding Author:

Yuda Sutini  
MTS Masyariqul Anwar, Indonesia  
Email: yudasutini81@gmail.com

---

## Introduction

Moral education plays an important role in shaping students' character to become individuals with high morality. Good morals include various attitudes and behaviors that reflect good values, such as honesty, responsibility, and patience. Therefore, moral education does not only provide theory, but must also be applied in everyday life. To achieve this goal, an effective learning method is needed that is able to improve students' understanding and application of moral values.

One method that can be used in moral learning is the scaffolding method. This method provides gradual support to students so that they are able to understand and apply the material being studied better. The concept of scaffolding is based on the theory of the Zone of Proximal Development (ZPD) developed by Vygotsky, which states that with proper guidance, students can achieve a higher understanding than if they learn alone.

In the context of learning good morals, the scaffolding method can help students understand abstract moral concepts through concrete examples, discussions, and gradual exercises. With this approach, students not only receive theories about commendable morals, but also gain direct experience in applying these values in everyday life. This aims to ensure that moral learning is not only cognitive, but also affective and psychomotor.

In addition, the application of the scaffolding method in learning commendable morals can also increase students' learning motivation. With gradual guidance, students feel more confident in understanding and applying moral values. This process also allows teachers to provide feedback that is appropriate to the individual needs of students, so that they can develop according to their respective abilities.

This study was conducted at MTS Masyarqul Anwar Mekar Jaya Tanjung Raja to analyze the effectiveness of the scaffolding method in improving the learning outcomes of commendable morals. This study aims to determine how the scaffolding method is applied, how students respond to this method, and to what extent this method can improve the understanding and application of moral values in everyday life.

It is hoped that the results of this study can be a reference for educators in developing more effective moral learning strategies. By optimally implementing the scaffolding method, it is hoped that students will not only understand the concept of commendable morals, but will also be able to internalize it in their lives, so that a strong and noble character is formed.

The objectives to be achieved in moral education in schools have the main objective of forming students' character so that they have high morality and are able to apply moral values in everyday life. However, in practice, many students still have difficulty in understanding and applying commendable morals, such as honesty, patience, and responsibility. This is a challenge for educators in finding the right and effective learning methods.

---

One of the problems often encountered in moral learning is the approach that is still theoretical and does not actively involve students. Many teachers only give lectures on morals without providing direct experience or gradual guidance in applying these values. As a result, students tend to only understand the concept cognitively without internalizing it in everyday life.

In addition, the gap in understanding and applying commendable morals among students is also caused by different environmental backgrounds. Some students may receive good moral guidance from their families and social environments, while others do not receive adequate direction. This causes differences in understanding and practicing commendable morals among students.

The scaffolding method is present as a solution to overcome this problem by providing gradual guidance to students until they are able to understand and apply good morals independently. With this method, students not only listen to theory, but are also given real experience in applying moral values in their daily lives.

This study will explore how the application of the scaffolding method can help reduce the gap in understanding and applying good morals among students. With a more interactive and experience-based approach, it is hoped that students can more easily understand and apply moral values in their lives.

The results of this study are expected to contribute to the world of education in developing more effective moral learning strategies based on student needs. With the application of the right scaffolding method, it is hoped that the gap in understanding and applying good morals can be minimized, so that all students have the same opportunity to develop good character.

## **Methods**

The research method used in this study is a qualitative method with a descriptive approach. Data were collected through direct observation, in-depth interviews, and documentation studies to understand how the scaffolding method is applied in learning commendable morals. This research was conducted at MTS Masyarqul Anwar Mekar Jaya Tanjung Raja involving students, teachers, and the school as research subjects.

The data sources in this study come from various aspects that support the accuracy of the information, including:

1. Classroom observation - Conducting direct observation of the learning process that applies the scaffolding method, recording teacher and student interactions, and the effectiveness of the strategies used.
2. Teacher interviews - Collecting information from teachers who teach commendable morals material regarding their experiences in implementing the scaffolding method.

- 
3. Student interviews - Exploring students' experiences in participating in scaffolding-based learning, including the obstacles and benefits they feel.
  4. Documentation of learning outcomes - Analyzing the results of exams, assignments, and student projects related to commendable morals material to measure the development of their understanding.
  5. Teacher reflective notes – Documenting the strategies used, challenges faced, and evaluations conducted by the teacher during the learning process.
  6. Group discussions – Holding group discussions with students to further understand how they respond to the scaffolding method in learning commendable morals.
  7. Literature study – Referring to various literature related to scaffolding and moral learning to enrich the theoretical basis of this research.
  8. School curriculum – Analyzing curriculum documents that regulate learning commendable morals to ensure the implementation of scaffolding is in accordance with educational standards.
  9. Learning media analysis – Assessing teaching materials and learning media used to support the scaffolding method.
  10. Data triangulation – Using various data sources above to ensure the validity and reliability of the research results.

Data analysis in this study was carried out through several stages, namely data reduction, data presentation, and drawing conclusions. Data reduction was carried out by selecting and summarizing information obtained from observations, interviews, and documentation studies. Relevant data was then presented in narrative form to facilitate understanding of the patterns that emerged.

Furthermore, data presentation was carried out by systematically compiling information so that the relationship between the variables studied could be clearly seen. The categorized data was then compared to identify trends and patterns in learning commendable morals with the scaffolding method.

In the conclusion drawing stage, the analyzed data was used to answer research questions and evaluate the effectiveness of the scaffolding method in improving learning outcomes. The conclusions obtained were also linked to educational theory and previous research.

The main data sources in this analysis included observation notes, interview transcripts, and student learning outcome documents. Data validity was strengthened through triangulation of sources and techniques, namely by comparing information from various perspectives.

From the results of the analysis, it was found that the scaffolding method had a positive impact on students' understanding in learning commendable morals. Students who

---

received gradual guidance showed an increase in understanding the concept of commendable morals and were able to apply it in everyday life.

In addition, the scaffolding method also increases students' learning motivation. With the initial support provided by the teacher, students feel more confident in facing learning challenges. They are more active in discussions and reflections so that learning becomes more meaningful.

The application of this method also makes it easier for teachers to identify learning difficulties experienced by students. By understanding students' proximal development zones, teachers can adjust learning strategies that suit their needs.

Furthermore, the data shows that the use of scaffolding contributes to building students' social skills. Through discussions and group work, they learn to communicate well, work together, and respect each other.

In terms of academics, the results of exams and assignments of students using the scaffolding method showed an increase compared to conventional methods. This indicates that gradual guidance is very helpful for students in internalizing commendable moral values.

The results of interviews with teachers also confirmed that the scaffolding method makes it easier to teach commendable moral material. Teachers feel more helped in guiding students gradually until they are able to understand and apply the material independently.

From the data obtained through group discussions, students expressed that the scaffolding method makes learning more interesting and interactive. They feel more motivated to learn and understand the material more easily compared to the usual lecture method.

Overall, the results of this study indicate that the scaffolding method is effective in improving the understanding and application of commendable moral values. Therefore, this method can be an alternative that can be applied by teachers in moral learning in schools.

With these findings, it is hoped that teachers can further optimize the use of the scaffolding method in learning commendable morals. Further development can be done by combining scaffolding with other learning methods for maximum results.

## **Result**

Based on the results of the research conducted, several main findings were found related to the application of the scaffolding method in learning commendable morals at MTS Masyarqul Anwar Mekar Jaya Tanjung Raja:

1. The scaffolding method improves students' understanding of the concept of commendable morals. With gradual support from teachers, students can understand moral values more deeply and apply them in everyday life.
2. Students who receive gradual support are more confident in applying moral values in everyday life. They feel more capable of making decisions that are in accordance with moral principles.
3. Students' learning motivation increases due to active involvement in learning. The scaffolding method allows students to be more active in asking questions, discussing, and exploring moral concepts in a more interactive way.
4. The interaction between teachers and students becomes more effective because the guidance provided is in accordance with individual needs. Teachers can identify student difficulties earlier and provide solutions that are appropriate to their level of development.
5. Students are more active in discussions and self-reflection on commendable moral values. Through group discussions and reflective assignments, students are better able to understand the importance of morals in their lives.
6. Improved academic results are seen from the higher average scores of students' exams compared to conventional methods. This shows that the scaffolding method not only has an impact on moral aspects but also on students' academic achievements.
7. Teachers find it easier to identify students' learning difficulties and provide appropriate solutions. With this strategy, teachers can adjust their teaching approaches to be more effective and appropriate to the needs of each student.
8. The scaffolding method helps students build independence in learning and make the right moral decisions in everyday life. Thus, students become more responsible and have better moral awareness.

Table 1. Comparison of Student Learning Outcomes Before and After Implementing the Scaffolding Method

No	Assessment Aspects	Before Scaffolding Implementation(%)	After Scaffolding Implementation (%)
1	Understanding of Material	65%	85%
2	Activity in Discussion	50%	80%
3	Self-Confidence	55%	82%
4	Application of Morals	60%	88%
5	Average Exam Score	70	90
6	Learning Independence	58%	87%
7	Reflection Ability	53%	86%
8	Interaction with Teachers	62%	89%



---

From the data presented in the table above, there is a significant increase in various aspects of learning after the scaffolding method was applied. The increase in understanding the material reached 20%, activeness in discussions increased by 30%, and the application of commendable morals increased by 28%. In addition, there was a significant increase in aspects of learning independence (29%), reflection ability (33%), and student interaction with teachers (27%).

With these results, the scaffolding method has proven to be an effective approach in learning commendable morals. Therefore, teachers are expected to continue to develop this method so that it is more optimal in supporting the development of student character.

With these results, the scaffolding method has proven to be an effective approach in learning commendable morals. Therefore, teachers are expected to continue to develop this method so that it is more optimal in supporting the development of student character.

#### Data Verification

Data verification in this study was carried out to ensure the validity and reliability of the results obtained from the application of the scaffolding method in learning commendable morals. The verification process was carried out through data triangulation, namely by comparing the results of observations, interviews, and documentation to ensure the consistency of research findings.

First, classroom observations were conducted during the implementation of the scaffolding method. These observations included interactions between teachers and students, student participation in discussions, and how students applied good morals in learning and daily life. The results of the observations showed that students were more active in discussions and had a better understanding of the material compared to before the implementation of this method.

Second, interviews were conducted with teachers and students to obtain their perspectives on the effectiveness of the scaffolding method. The teacher said that this approach made it easier to guide students gradually until they could understand the material independently. Students also stated that this method helped them be more confident in understanding and applying good moral values.

Third, documentation was used as an additional verification tool, such as assignment results, student reflection journals, and learning evaluation scores before and after the implementation of the scaffolding method. From these documents, a significant increase in students' understanding and application of good morals was seen.

In addition, a validity test was conducted by comparing the results of this study with similar studies that had been conducted previously. The results showed that the implementation of the scaffolding method consistently had a positive impact on students' understanding and strengthening of character.

---

To improve data reliability, discussions were conducted with education experts to obtain input on the research results. Experts agreed that the scaffolding method is effective in improving character-based learning, with the note that the application of this method needs to be carried out consistently and in a targeted manner. The entire data verification process ensures that the research results are accountable and have a high level of validity. Therefore, the findings of this study can be used as a basis for developing scaffolding-based learning methods to improve students' commendable morals more widely in various educational environments.

## Discussion

Data validation is an important step in this study to ensure that the data obtained has a high level of accuracy and reliability. Data validation is carried out through various techniques, such as method triangulation, source triangulation, and confirmation with education experts. These steps aim to ensure that the results obtained truly reflect the real conditions in the implementation of the scaffolding method in the classroom.

One of the main techniques in data validation is method triangulation, where the results of observations, interviews, and documentation are compared to find consistent patterns. If these three methods show consistent results, then the data is considered valid and reliable. In this study, all methods showed that scaffolding had a positive impact on students' understanding and application of commendable morals.

Source triangulation was also used by comparing information from various sources, such as students, teachers, and principals. By confirming findings from various perspectives, it can be ensured that the data obtained is not the result of individual bias or misperception. From the results of the interviews, all parties involved stated that the scaffolding method helped improve students' motivation and understanding in learning morals.

In addition, validation was carried out by comparing the findings of this study with the results of previous studies. Several previous studies have shown that the scaffolding method is effective in improving learning outcomes, especially in cognitive and affective aspects. This finding further strengthens the evidence that this method is relevant and can be applied in various educational contexts.

Confirmation from education experts is also part of the validation process. In this study, education experts who have experience in the field of character-based learning provided input on the findings. The experts stated that the scaffolding strategy is in accordance with the principles of constructivist learning and can be applied effectively to shape students' character.

Data validation was also carried out by evaluating the reliability of the research results. To ensure that the research results were not influenced by external factors that were coincidental, repeated observations were carried out in several learning sessions. From the results of the analysis, the consistency of the findings showed that the scaffolding method did have a significant positive impact.



---

One of the validation indicators examined was the increase in academic scores and students' understanding of the concept of commendable morals. The data on scores before and after the implementation of the scaffolding method were analyzed, and the results showed a significant increase. This proves that scaffolding makes a real contribution to improving learning outcomes.

In addition to increasing academic scores, data validation also includes analysis of students' attitudes and behaviors in everyday life. Teachers and parents reported that students involved in scaffolding-based learning showed more positive behavioral changes, such as being more honest, more disciplined, and more responsible in carrying out their tasks.

To avoid bias in the study, an analysis was conducted of other possible factors that might influence the results. For example, the condition of the learning environment, other teaching methods applied simultaneously, and individual differences in learning ability. From the results of the analysis, it can be concluded that the main factor contributing to the improvement of learning outcomes is the implementation of the scaffolding method.

The results of this data validation provide confidence that this study has a strong empirical basis and can be used as a reference for the development of other learning methods. Therefore, the scaffolding method is expected to continue to be applied and refined so that it is more effective in improving the quality of moral learning.

In conclusion, the data validation conducted in this study shows that the scaffolding method is effective in improving learning outcomes and character formation of students. With the various validation techniques applied, the results of this study can be considered valid and can be used as a basis for developing character-based education policies.

With the validation that has been carried out, it is hoped that this study can provide a real contribution to the world of education, especially in developing learning methods that can shape better student character in the future.

Based on the results of the data validation that has been carried out, it was found that the scaffolding method has a significant impact on improving students' understanding and attitudes towards the material of commendable morals. Data obtained from observations showed an increase in active student participation during the learning process. Students interact more with teachers and classmates in understanding the concept of morals.

The results of interviews with teachers showed that the scaffolding method helped students understand moral values more deeply. Teachers stated that this approach made it easier for students to connect theory with real practices in everyday life.

---

In terms of academic results, the analysis of pre-test and post-test scores showed a significant increase after the implementation of the scaffolding method. Statistical data showed that most students experienced a fairly high increase in scores compared to before this method was implemented.

In addition, validation was also carried out through source triangulation, namely by comparing data obtained from teachers, students, and parents. The results showed a match between teacher reports regarding changes in student attitudes and observations made by parents at home.

Furthermore, the documentation results show that students who learn with the scaffolding method are better able to internalize commendable moral values, such as honesty and responsibility, compared to students who use conventional learning methods.

Validation results from education experts confirm that the scaffolding approach is in accordance with the principles of constructivist learning. Experts emphasize that this method not only improves students' conceptual understanding but also develops their independence and social skills.

In terms of learning motivation, observations show that students who learn with the scaffolding method are more motivated to be actively involved in the learning process. They show a higher interest in completing tasks given by the teacher.

Further analysis shows that the scaffolding method not only has an impact on students' cognitive aspects but also on affective and psychomotor aspects. Students are more confident in expressing their opinions and are more active in discussing topics related to morals.

Evaluation of the influence of the learning environment shows that the scaffolding method is more effective when applied in a classroom atmosphere that supports discussion and collaboration. An interactive environment helps students to support each other in understanding the material being taught.

The validation results also show that the scaffolding method can be adapted in various other subjects that require a deeper understanding of concepts. This shows the flexibility of the method in improving the quality of learning in general.

Overall, the results of data validation show that the scaffolding method is an effective approach in improving students' understanding and attitudes towards the material of commendable morals. With gradual support from teachers, students are able to build their own understanding more independently and in depth.

The conclusion of this validation result strengthens the findings of previous studies that the scaffolding method can be an effective strategy in improving learning outcomes, both in terms of academics and character formation of students. Therefore, the application of this method needs to be continuously developed and adjusted to the learning needs in various educational contexts.

---

## Conclusion

The findings of this study indicate that the implementation of the scaffolding method significantly improves students' understanding of the material on commendable morals. With gradual support from teachers, students can understand moral concepts better and apply them in their daily lives. Scaffolding-based learning also helps students develop critical and reflective thinking skills towards the moral values taught.

In addition, the results of the study indicate that the scaffolding method is able to increase students' active involvement in the learning process. Students who are given gradual challenges are more motivated to participate in discussions and complete the tasks given. This shows that this method is able to increase students' enthusiasm for learning and overall participation.

Improvements in learning outcomes can also be seen from the comparison of students' pre-test and post-test scores. The results of the analysis showed a significant increase in students' average scores after the implementation of the scaffolding method. In other words, this approach has proven effective in improving students' academic achievement in understanding the material on commendable morals.

Other findings indicate that the scaffolding method not only has an impact on the cognitive aspect, but also on the affective and social aspects of students. Students become more confident in expressing their opinions and are better able to work together with their friends in understanding the learning material. This proves that the scaffolding method can support the development of students' character as a whole.

Although the scaffolding method has proven effective, this study also revealed several challenges in its implementation. Teachers need to have the skills to provide support that is appropriate to the level of student understanding and be able to manage time effectively so that the learning process continues to run optimally. Therefore, training is needed for teachers in implementing this method properly.

Overall, this study confirms that the scaffolding method is an effective learning strategy in improving learning outcomes and character formation of students. Therefore, the application of this method is recommended for use in learning commendable morals and can be further developed for other subjects to improve the quality of education in schools.

### Academic Impact

The application of the scaffolding method in learning commendable morals has a significant academic impact on students. With this approach, students experience an increase in understanding the material and are able to apply moral concepts in everyday life. The evaluation results show a consistent increase in students' academic grades, which reflects the effectiveness of this method in improving learning achievement.

In addition to improving academic understanding, the scaffolding method also accelerates the learning process. With gradual guidance, students find it easier to

---

understand the material without experiencing excessive difficulties. This approach allows students to be more independent in learning and develop critical thinking skills that can help them in other subjects outside of morality.

In terms of social contribution, the scaffolding method helps in building better student character. Students who receive learning with this method show improvements in social attitudes, such as being more honest, disciplined, and responsible in the school environment and society. This shows that the scaffolding method not only has an impact on academic aspects, but also on the formation of student character as a whole.

One of the most prominent social impacts is the improvement in students' ability to interact and work together. With the process of discussion and reflection in scaffolding learning, students become more open in communicating and respect the opinions of others. They are also better able to resolve conflicts with a wiser approach and based on the moral values that have been learned.

The scaffolding method also has a long-term impact on students' social development. By getting used to critical and reflective thinking, they tend to become individuals who care more about their surroundings. Empathy and social concern increase, allowing them to become agents of change in society by applying moral values in various aspects of life.

Overall, the implementation of the scaffolding method not only improves academic results, but also makes a positive contribution in shaping better student personalities. Therefore, this method is recommended to be applied more widely in the education system, especially in character education, in order to create a generation that is academically intelligent and superior in social aspects.

### Social Contribution

The application of the scaffolding method in learning good morals not only has an impact on academic aspects, but also has a significant social contribution. By building a deeper understanding of moral values, students become more aware of the importance of being honest, disciplined, and responsible in everyday life. They begin to apply these principles in social interactions, both in the school environment and in the community.

One of the main impacts of this method is the increase in students' social awareness. They are more sensitive to the needs and feelings of others and more active in helping others. This can be seen from the increased participation of students in social activities such as mutual cooperation, social services, and various forms of cooperation in the school environment and the community.

In addition, the scaffolding method also helps students develop better communication skills. With the process of discussion and reflection in learning, students become more open in expressing their opinions, more appreciative of other people's perspectives, and more skilled in resolving conflicts wisely. This contributes to building a healthier culture of dialogue in schools.

---

This increase in social skills also affects the relationship between students and teachers and between students. With gradual support provided through scaffolding, the relationship between teachers and students becomes more harmonious. Students are more confident in communicating with teachers, asking about things they do not understand, and discussing moral values that must be applied in everyday life.

In addition to the school environment, the impact of the scaffolding method can also be felt in family and community life. Students who have understood and applied commendable moral values at school also begin to apply them at home and other social environments. They respect their parents more, are more polite in interacting, and are more responsible in household chores.

Overall, the application of the scaffolding method not only improves academic results, but also forms better student character in social life. With increased awareness, communication skills, and the ability to interact positively, students can contribute more to creating a more harmonious and ethical social environment.

## References

- Alexander, R. (2008). *Essays on Pedagogy*. Routledge.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How People Learn: Brain, Mind, Experience, and School*. National Academy Press.
- Cole, M. (1996). *Cultural Psychology: A Once and Future Discipline*. Harvard University Press.
- Daniels, H. (2001). *Vygotsky and Pedagogy*. Routledge.
- Engeström, Y. (2001). Expansive Learning at Work: Toward an Activity-Theoretical Reconceptualization. *Journal of Education and Work*, 14(1), 133-156.
- Fisher, R. (2005). *Teaching Children to Think*. Nelson Thornes.
- Gallimore, R., & Tharp, R. G. (1990). Teaching Mind in Society. In L. C. Moll (Ed.), *Vygotsky and Education*. Cambridge University Press.
- Hammond, J., & Gibbons, P. (2005). Putting Scaffolding to Work: The Contribution of Scaffolding in Articulating ESL Education. *Prospect*, 20(1), 6-30.
- Hardman, J. (2016). Tutor-Child Interaction in the Zone of Proximal Development. *Learning, Culture and Social Interaction*, 8, 1-12.
- Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and Achievement in Problem-Based and Inquiry Learning: A Response to Kirschner, Sweller, and Clark. *Educational Psychologist*, 42(2), 99-107.
- Hogan, K., & Pressley, M. (1997). *Scaffolding Student Learning: Instructional Approaches and Issues*. Brookline Books.

- 
- Lantolf, J. P., & Poehner, M. E. (2014). *Sociocultural Theory and the Pedagogical Imperative in L2 Education*. Routledge.
- Moll, L. C. (2014). *L. S. Vygotsky and Education*. Routledge.
- Murphy, P. K., & Alexander, P. A. (2002). What Counts? The Predictive Powers of Subject-Matter Knowledge, Strategic Processing, and Interest in Domain-Specific Performance. *Journal of Experimental Education*, 70(3), 197-214.
- Maybin, J., Mercer, N., & Stierer, B. (1992). Scaffolding Learning in the Classroom. In K. Norman (Ed.), *Thinking Voices: The Work of the National Oracy Project*. Hodder & Stoughton.
- Mercer, N., & Littleton, K. (2007). *Dialogue and the Development of Children's Thinking: A Sociocultural Approach*. Routledge.
- Palincsar, A. S., & Brown, A. L. (1984). Reciprocal Teaching of Comprehension-Fostering and Comprehension-Monitoring Activities. *Cognition and Instruction*, 1(2), 117-175.
- Pritchard, A. (2009). *Ways of Learning: Learning Theories and Learning Styles in the Classroom*. Routledge.
- Puntambekar, S., & Hübscher, R. (2005). Tools for Scaffolding Students in a Complex Learning Environment: What Have We Gained and What Have We Missed?. *Educational Psychologist*, 40(1), 1-12.
- Reiser, B. J. (2004). Scaffolding Complex Learning: The Mechanisms of Structuring and Problematizing Student Work. *The Journal of the Learning Sciences*, 13(3), 273-304.
- Reiser, B. J. (2004). Scaffolding Complex Learning: The Mechanisms of Structuring and Problematizing Student Work. *The Journal of the Learning Sciences*, 13(3), 273-304.
- Rogoff, B. (1990). *Apprenticeship in Thinking: Cognitive Development in Social Context*. Oxford University Press.
- Sawyer, R. K. (2006). *The Cambridge Handbook of the Learning Sciences*. Cambridge University Press.
- Sawyer, R. K. (2014). *The Cambridge Handbook of the Learning Sciences* (2nd ed.). Cambridge University Press.
- Schunk, D. H. (2012). *Learning Theories: An Educational Perspective*. Pearson.
- Tharp, R. G., & Gallimore, R. (1988). *Rousing Minds to Life: Teaching, Learning, and Schooling in Social Context*. Cambridge University Press.



- 
- van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding in Teacher–Student Interaction: A Decade of Research. *Educational Psychology Review*, 22, 271–296.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.
- Wells, G. (1999). *Dialogic Inquiry: Towards a Sociocultural Practice and Theory of Education*. Cambridge University Press.
- Wood, D., Bruner, J. S., & Ross, G. (1976). The Role of Tutoring in Problem Solving. *Journal of Child Psychology and Psychiatry*, 17(2), 89-100.
- Wertsch, J. V. (1985). *Vygotsky and the Social Formation of Mind*. Harvard University Press.

