



Impact of Teaching Strategies on the Academic Performance of Students at Primary Level in District Buner

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Abstract: This study examines the impacts of teaching strategies on the academic performance of primary school students in Tehsil Khadukhel District Buner. The study's objectives are to identify effective teaching strategies for promoting student achievement, examine the effectiveness of different strategies for diverse student populations, and determine the support teachers need to implement evidence-based teaching practices. The methodology involves collecting data from a sample size of 50 teachers and 150 students using questionnaires. The study will use a modest casual selection method, and the model scope will be strong-minded using the Krejci and Morgan table. The results will be investigated using expressive statistics and illative figures. The discoveries of this study are expected to contribute to the existing figure of information on the effectiveness of different teaching strategies in promoting academic achievement among primary school students. The study's conclusion will highlight the importance of providing teachers with ongoing specialized progress occasions and resources near support evidence-based teaching practices.

Keywords: Teaching strategies, academic performance, primary level, evidence-based teaching practices

1. Background of Study

Education is the process of imparting to a group of individuals the knowledge, skills, attitudes, beliefs, and habits that are assumed and then transferred to other people through conversation, storytelling, teaching, training, and research. Careful planning, preparation, and distribution strategies are vital components of effective teaching and learning. The teacher must thoroughly understand the subject matter and various teaching techniques before they can accomplish this. One of the most promising ways for people to live healthier, more productive lives is through education (Republic of Kenya, 2011). The effectiveness of the student learning process and their performance are influenced by the teaching tactics, which are crucial (Wong and Wong, 2011). Their concerns center on whether secondary school education fosters high-quality learning and whether students meet performance standards and are well prepared to acquire the knowledge, skills, and attitudes needed to grow into well-rounded people. Furthermore, the 2010 Taskforce on Realigning Education to the Pakistani Constitution revealed that the educational system has not addressed students' holistic development. (Republic of Pakistan, 2012).

The only goal of teaching, regardless of educational level, is to guarantee that every student can learn new material and put it to use. Because of this, it is the responsibility of all educators to be aware of their teaching style as well. This way, instruction serves the teachers' and the students' needs. As a result, understanding how your students learn and which teaching methods work best in your classroom and institution is essential to the learning process.

Some research scholars and studies (Onweh and Akpan, 2014; Amos, Folasayo, and Oluwatoyin, 2015) have questioned the methods and strategies that secondary school instructors employ in schools. Amos et al. (2015) observed that teachers struggle to implement instructional strategies in the secondary school classroom and questioned the methods educators employ to support teaching and knowledge. Kwek (2011) argues that teaching approaches and methods in schools were wanting, given that most teachers apply teaching methodology that considers students passive learners and listeners. Accordingly, instructors turn to tutoring pupils for essential exams. As a result, it restricts pupils' capacity for critical thinking, creativity, invention, and problem-solving. According to Thomas and Green (2015), teachers' use of instructional strategies impacts how well students are prepared to gain the knowledge, attitudes, and abilities they will need to succeed.

For generations, the teaching profession has been dominated by traditional methods, in which students are treated as passive objects of learning, and teachers are at the center of both (Schiller, 2009). Teacher-centered education continues to be the predominant teaching strategy in the twenty-first century, along with lectures, in secondary schools. This has drawn criticism for being theoretical and treating students more like information consumers than producers (Republic of Pakistan, 2012). Teachers play a crucial role in teaching and learning because they ensure students receive all the necessary knowledge throughout the year by adhering to the curriculum. At any level, the primary goal of instruction is to significantly alter the student (Tebabal & Kahssay, 2011). Most traditional methods were teacher-centered and relied heavily on memorization and theory to make the students passive and acquire knowledge from the teacher without increasing their engagement with the subject matter (Tebabal & Kahssay, 2011). Because they embrace the idea of discovery learning, student-centered techniques are more effective and are therefore encouraged (Brindley, 2015).

Today's educators use the student-centered approach to encourage their pupils' engagement, critical thinking, analytical investigation, and enjoyment (Hesson & Shad, 2007). Teachers must employ the pedagogy and approach that best fits the student, the objectives, and the expected results to transfer knowledge. Teachers must be knowledgeable about various teaching tactics because most students' low academic performance across a range of subject areas is essentially caused by the use of inappropriate teaching methods by educators to impart knowledge to learners (Adunola, 2011). Teaching involves imparting knowledge or skills, particularly in elementary, secondary, or university settings. Ayeni (2011) defines teaching as a systematic process of imparting knowledge, attitudes, and skills in compliance with professional standards. Regarding teaching methods, teacher-centered approaches were more common in the past than student-centered ones, with many educators using them to convey knowledge to students. The topic of education research has been greatly interested in questions regarding the impact of teaching methods on students' learning up until this point (Hightower et al., 2011).

1.2 Objectives of the Study

This study's primary goal is to investigate the influence of teachers' strategies on students' theoretical performance. This education aims to:

- To investigate teaching strategies of teachers at the primary background level
- To determine the effectiveness of different teaching strategies for diverse student backgrounds, including students with varying learning needs.
- To determine the support teachers need to implement evidence-based teaching practices, including access to ongoing professional development opportunities and resources.

1.3 Research Questions

1. What are the teaching strategies of teachers at the primary background level?
2. What is the effectiveness of different teaching strategies for diverse student backgrounds, including students with varying learning needs?

3. Do the support teachers need to implement evidence-based teaching practices, including access to ongoing professional development opportunities and resources?

2. Literature Review

2.1 Impact of Teacher Strategies on Student Academic Performance

Effective teaching strategies are crucial to student academic performance in schools. The choice of teaching strategies has a significant impact on apprentice learning outcomes. According to research, effective teaching strategies such as feedback, active learning, and differentiated instruction positively affect student academic performance. In this literature review, the influence of teacher strategies on student academic presentation is explored.

Active study is an instructional approach that involves students in the learning process. Active learning strategies include discussions, problem-based learning, and cooperative learning. According to a study by Freeman et al. (2014), dynamic erudition improves student academic presentation related to traditional lecture-style teaching. The study found active learning strategies increase student engagement, critical thinking, and knowledge retention. Another Prince (2004) review showed that active learning strategies positively impact student motivation and academic achievement.

Feedback is an essential aspect of the process of teaching and learning. Giving students feedback is a way to let them know how well they are learning. Feedback can also be negative or positive and can be given in various forms, such as written, verbal, or electronic. According to a study by Hattie and Timperley (2007), feedback significantly impacts student academic performance. The study found feedback strategies focusing on the task, procedure, and self-regulation improve student learning outcomes. The study also highlighted the importance of timely and specific feedback.

Differentiated instruction is a method of teaching that involves tailoring instruction to meet students' requirements. Differentiated instruction involves modifying instruction to see the needs of various learners. According to a study by Tomlinson (2014), differentiated teaching positively impacts student academic performance. The study found that differentiated instruction improves student motivation, rendezvous, and academic achievement. Another survey by Gregory and Chapman (2013) showed that differentiated instruction positively impacts student learning outcomes in mathematics.

2.2 Explaining Quality Teaching

According to research, quality teaching must always put the learner first. It intends to aid all pupils' learning and the majority of them. Hence, the emphasis should not only be on pedagogical capacities but also on creating a learning environment that meets the requirements of each student. Students should also understand why they are working so they may connect with other pupils and ask for assistance when needed.

Quality teaching is a critical component of effective educational practices, and various researchers have explored the factors contributing to its understanding and explanation. Johnson (2019) highlighted the significance of pedagogical expertise and skills in quality teaching, highlighting teachers' need to have a deep understanding of subject matter and effective instructional strategies. Furthermore, Smith and Jones (2020) found that classroom management and student engagement were crucial to fostering quality teaching. Their research indicated that teachers who establish clear expectations, maintain an organized learning environment, and actively involve students during learning are more likely to promote positive student outcomes. Additionally, a study by Brown et al. (2021) emphasized the role of ongoing professional development in enhancing quality teaching. They found that teachers who engage in continuous learning and reflection on their practice are better equipped to fulfill the diverse requirements of their pupils. The fiction suggests that quality teaching encompasses pedagogical knowledge, effective classroom management, student engagement, and ongoing professional development.

2.3 Aiding to Growth

For the benefit of their pupils, teachers, according to Alton-Lee (2004), should match their work qualifications with their instructional strategies and pedagogies. According to Alton-Lee, a crucial difficulty in today's classrooms is for instructors to make sure that the content they are delivering meets the learning aim. Even after many years of

teaching, there is still potential for creativity and growth so that teachers can meet their students' needs. As demands and requirements fluctuate, instructors must also seek both professional and personal development for the sake of their students for themselves since we are all lifetime students. Age is not a factor in learning; the only factors that matter are priorities and awareness.

2.4 Reflective Inquiry

Deppeler (2000), another researcher, contends that when instructors reflect on and examine their own beliefs of teaching practices, they are able to modify their methods of instruction. Ironically, instructors hardly ever have time to replicate on their daily activities in order to make improvements, or they are ignorant of this procedure and find it impossible. They disregard the fact that expressive if the student understood or if it was even terrible for a student to understand the most undeveloped notion was considered unnecessary, believing that providing the information that has been scheduled for a given day and subject is the fundamental requirement.

2.5 Content (What) and Strategy (How)

The majority of educators think that improving their teaching methods will be aided by having a firm grasp of the subject that has to learn from and presented (In 2003, Hill and Crevola). In For numerous institutions, this is a crucial problem. Teachers lose perspective on their pedagogical approaches and presume that the students' challenges are caused by resulting from the content (i.e., what has to be imparted and taught)), which is difficult whether or whether it piques their interest, as opposed to understanding that a more effective teaching approach that is customized to each student's requirements and demands will spark their interest and improve education opportunities for the students. Furthermore, despite being connected, how and what have very different and distinct personalities.

Hattie (2009) conducted A comparative study of numerous studies and discovered that the caliber and relevance of content strongly affect student achievement. The author emphasized the importance of selecting content that is aligned with learning goals, as it enables students obtaining the necessary abilities and knowledge.

2.6 Factors Affecting the Effectiveness of Teaching Strategies

Teaching strategies performance a critical function in establishing students' academic success. However, the effectiveness of teaching strategies can be influenced by several factors, including students' prior knowledge and skills, the learning environment, and the teacher's pedagogical approach. This literature appraisal provides an outline of the research on factors affecting the effectiveness of teaching strategies.

2.7 Prior Knowledge and Skills

Students' prior information and skills can influence their ability to learn and benefit from different teaching strategies. Students who have a strong basis of knowledge and skills in a particular topic area may benefit more from inquiry-based learning, while students with less background knowledge may benefit more from direct instruction (Kalyuga, Ayres, Chandler, & Sweller, 2003). Therefore, teachers need to reflect students' prior knowledge and skills when selecting and implementing teaching strategies.

Effective teaching strategies play a vital part in facilitating pupil education, though the effectiveness of these strategies can be influenced by various factors, including students' prior knowledge and skills. This literature review examines the existing research to understand how prior knowledge and skills interact with teaching strategies and affect students' learning outcomes.

3. Research Design

The study used a mixed survey research design employing a quantitative approach. Research design gives specific direction for structuring the research, addressing the central research questions, and generating answers to research problems (Creswell, 2013). In addition, the research design guides the information gathering to answer the research questions or hypotheses under study (Kothari, 2009)—this method of research study aimed to address the influence of teaching strategies on students' performance.

3.1 Population of the Study

The population for this learning comprised all schools of district Buner having the primary section.

3.2 Sample of the Study

The mark population for this learning was primary school students and teachers in Tehsil Khadukhel District Buner. The sample size was gritty using the Krejcie and Morgan table, and a model size of 50 teachers and 150 students was particular using a simple random sample technique.

3.3 Data Collection Methods

The primary method was used for the data group, so questionnaires were used for collecting data in this study.

4 Data Analysis

4.1 Correlation Analysis

Table 1: Correlation Analysis

		Teacher Strategies	Academic Performance
Teacher Strategies	Pearson Correlation	1	.711**
	Sig. (2-tailed)		.000
	N	200	200
Academic Performance	Pearson Correlation	.711**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

4.2 Regression Analysis

Table 2: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.711 ^a	.506	.503	4.80892

Table 3: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4681.180	1	4681.180	202.423	.000 ^b
	Residual	4578.900	198	23.126		
	Total	9260.080	199			

Table 4: Regression Statistics

		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	24.060	2.296		10.481
	Academic Performance	.556	.039	.711	14.228

The correlation analysis presented in Table 4.1 examines the relationship between Teacher Strategies and Academic Performance among the participants in this study. The Pearson correlation coefficient, which measures the strength and direction of the linear relationship between two variables, was used to analyze the data.

The results reveal a highly significant positive correlation between Teacher Strategies and Academic Performance ($r = 0.711$, $p < 0.01$). This indicates a strong association between the quality of teaching strategies employed by teachers and the academic achievements of the students. The correlation coefficient of 0.711 suggests a substantial and positive linear relationship between these two variables. As the correlation coefficient is closer to 1, it signifies that as Teacher Strategies improve, there is a tendency for Academic Performance to also improve among the primary school students in Tehsil Khadukhel District Buner.

The statistically significant correlation coefficient ($p < 0.01$) implies that variations in Teacher Strategies are reliably related to variations in Academic Performance. In practical terms, this suggests that when teachers employ effective and diverse teaching strategies, students are more likely to exhibit enhanced academic performance. These findings underscore the critical role that teachers' pedagogical methods play in shaping students' educational outcomes.

The size of the correlation coefficient ($r = 0.711$) indicates a strong positive linear relationship, reinforcing the notion that a well-thought-out and multifaceted approach to teaching is conducive to improved academic achievements. This correlation is consistent with the study's initial objectives, emphasizing the importance of effective teaching strategies in bolstering students' academic performance. The analysis of the correlation matrix underscores a robust and statistically significant positive relationship between Teacher Strategies and Academic Performance. These findings highlight the vital role of teachers' instructional methods in shaping the educational progress of primary school students. Effective teaching strategies appear to be a key factor in fostering a conducive learning environment that positively impacts students' academic outcomes.

4.3 Findings

The study examined primary school students' perceptions regarding the impact of teachers' strategies on their academic performance. The findings indicate a prevailing positive sentiment toward diverse instructional methods employed by teachers. A significant consensus (65.0%) emerged, with students strongly agreeing that teachers utilize a variety of approaches to engage them in learning. This underscores the efficacy of versatile teaching techniques in maintaining student interest and involvement in the classroom.

Clear communication is vital for effective learning, and the findings affirm this. Most respondents (75.5%) agreed or strongly agreed that teachers provide clear explanations and instructions. This clarity contributes to students' comprehension and confidence in grasping subject matter. Additionally, the study illuminated the significance of timely feedback and assessments, as observed by the considerable percentage (35.5%) who strongly agreed. This outcome implies that prompt and constructive feedback is instrumental in guiding students' learning progress.

Students' perception of teachers' adaptability to diverse learning needs emerged as another key finding. Most participants (50%) strongly agreed that teachers adjust their teaching methods to cater to different students. This recognition of individual differences underscores the importance of personalized instruction in promoting effective learning outcomes. Moreover, participants conveyed a positive inclination towards technology integration (64.5% strongly agree), implying that well-implemented technological tools can enhance the learning experience. The study illuminated the pivotal role of teachers in promoting critical thinking and problem-solving skills, with a substantial majority (59.5%) strongly agreeing. This emphasizes the value of educators in nurturing higher-order cognitive abilities among students. Additionally, the findings highlighted the correlation between an inclusive classroom environment and student motivation. A notable proportion (52%) agreed that teachers foster a positive and inclusive atmosphere, indicating its contribution to students' motivation and sense of belonging.

The active incorporation of experiential learning opportunities received significant acknowledgment (25.5% strongly agreeing). This suggests that hands-on activities can effectively enhance students' understanding and retention of concepts. Similarly, students expressed strong agreement (63.5%) in understanding subjects taught by teachers, implying a sense of clarity and effective knowledge transfer. Notably, the study revealed that students' perceived application of learned knowledge to real-life situations was substantial (49% strongly agreeing). This underscores the value of practical relevance in facilitating knowledge transfer beyond the classroom. Furthermore,

students appreciated teachers who provide constructive feedback to improve academic performance (41% strongly agree), suggesting that such guidance is valued as a tool for growth.

Furthermore, the study delved into students' attitudes toward their learning habits and behaviors. A notable proportion (64.0%) strongly agreed that they effectively manage their study time and develop productive study routines. This finding indicates that students recognize the importance of self-regulation and are motivated to maintain disciplined study practices. Interestingly, the study revealed a substantial correlation between teacher-led encouragement and students' perceived academic motivation. A combined 50.5% strongly agreed that they feel motivated to achieve their best in their teacher's class, suggesting that teachers play a significant role in instilling a drive for excellence among students. This connection emphasizes the impact of teachers' attitudes and teaching methods on students' intrinsic motivation.

Moreover, the study highlighted the role of collaborative learning in the classroom. While a significant proportion (59.0%) agreed or strongly agreed that they actively seek additional resources to deepen their understanding, the findings showed room for improvement in fostering student collaboration and teamwork (15.5% agreeing). This indicates a potential area for educators to enhance cooperative learning experiences, fostering diverse perspectives and enriching the learning process. The study also shed light on students' perceptions of academic progress. A notable number (54.5%) strongly agreed that they had observed noticeable improvements in their academic performance since being in their teacher's class. This observation suggests that students attribute their progress to effective teaching strategies and support from their educators, reinforcing the link between teaching practices and student outcomes.

Furthermore, the findings revealed an intriguing pattern regarding students' engagement in classroom activities and discussions. While a significant portion (59.0%) strongly agreed that they actively participate, a noteworthy number (21.0%) remained neutral. This highlights the need to investigate further factors influencing students' participation levels, such as class size, teaching methods, and individual student characteristics.

Lastly, the study illuminated the critical role of fostering a positive classroom environment. Students who reported feeling supported and encouraged by their teachers to reach their full potential constituted a substantial majority (83.0% combined agreement). This finding underscores the significance of a nurturing and empowering teacher-student relationship in promoting students' self-efficacy and well-being.

In conclusion, the study's findings provide valuable insights into the intricate dynamics between teachers' strategies and students' academic performance at the primary level. The positive perceptions expressed by students highlight the importance of instructional versatility, clear communication, adaptability, and supportive learning environments. These factors collectively contribute to a conducive learning atmosphere that fosters engagement, motivation, and cognitive development. The study underscores teachers' influential role in shaping students' learning experiences and outcomes. Effective teaching strategies facilitate subject matter comprehension and nurture critical thinking, problem-solving skills, and practical application of knowledge. Moreover, the findings suggest potential areas for educators to enhance collaborative learning and student participation.

Additionally, the study's implications extend beyond the confines of the classroom. The positive correlations between effective teaching strategies and students' perceptions of their abilities have broader societal implications. As students develop confidence in their academic skills and become active participants in their learning, they are more likely to contribute positively to their communities and the larger society. Cultivating critical thinking, problem-solving, and practical application skills equips students to face real-world challenges with creativity and competence.

Moreover, the study's findings emphasize the importance of ongoing professional development for teachers. The positive outcomes associated with versatile instructional methods, adaptability to diverse learning needs, and timely feedback highlight the need for educators to refine their pedagogical skills continuously. Access to relevant training and resources can empower teachers to create dynamic and inclusive learning environments that cater to the evolving needs of their students.

In conclusion, the study contributes to the growing body of knowledge on the impacts of teachers' strategies on primary-level students' academic performance. The findings underscore the significant role of educators in shaping students' educational experiences and outcomes. Effective teaching strategies encompassing various instructional methods, clear communication, adaptability, and supportive classroom environments contribute to students'

engagement, motivation, and holistic development. The study's insights have practical implications for educators, policymakers, and curriculum designers seeking to optimize teaching practices and enhance learning outcomes. Educational institutions can create a positive cycle of continuous improvement by fostering an environment that values student input, encourages innovation, and supports professional development.

Ultimately, the study reaffirms that the education journey is a collaborative effort between teachers and students, each contributing to the other's growth and success. As educators strive to create meaningful and impactful learning experiences, they empower students to become lifelong learners, critical thinkers, and active contributors to a knowledge-driven society. The study's findings testify to the transformative power of effective teaching strategies in shaping the future of education and the generations it nurtures.

Overall, the findings underscore the positive impact of effective teaching strategies on students' academic performance at the primary level. Strategies such as engaging instruction, real-life applications, clear communication, adaptability, and timely feedback contribute significantly to students' learning experiences and outcomes. The study's results affirm teachers' multifaceted role in shaping academic achievements and students' motivation, engagement, and confidence in their learning journey.

5. Conclusion and Recommendations

Based on the findings of this study, several key recommendations emerge to enhance teaching strategies and subsequently improve primary-level students' academic performance.

5.1 Promote Pedagogical Diversity

Educational institutions should encourage teachers to employ a diverse range of instructional methods, including interactive discussions, multimedia resources, hands-on activities, and real-life examples. Providing educators with training and resources to incorporate various strategies can create a more engaging and dynamic learning environment catering to different learning styles.

5.2 Foster Inclusive Practices

Recognizing the diverse needs of students, teachers should adopt inclusive teaching practices that accommodate varying learning abilities and backgrounds. Professional development programs should focus on equipping educators with skills to adapt their approaches and provide differentiated instruction, ensuring that every student has the opportunity to succeed.

5.3 Embrace Technology Integration

As technology continues to shape education, teachers should harness its potential to enhance learning experiences. Institutions should support teachers in effectively integrating technology tools and resources that align with curriculum goals, promoting digital literacy, and preparing students for a technology-driven future.

5.4 Encourage Timely Feedback

Educators should prioritize providing timely and constructive feedback to students on their academic performance. This practice guides students' learning and boosts their confidence and motivation. Institutions can establish mechanisms to facilitate regular feedback exchange between teachers and students.

5.5 Cultivate a Supportive Classroom Environment

Creating a positive and inclusive classroom atmosphere is crucial. Schools should encourage teachers to establish a safe and respectful space that promotes collaboration, critical thinking, and creativity. This can lead to increased student engagement and a sense of belonging.

5.6 Offer Ongoing Professional Development

Educational institutions should invest in continuous professional development opportunities for teachers. Workshops, seminars, and training sessions can empower educators to stay updated with the latest pedagogical approaches, educational research, and best practices.

5.7 Strengthen Student-Teacher Relationships

Establishing strong relationships between teachers and students is essential. Schools can encourage open communication, regular interactions, and mentorship programs to foster a sense of trust and support, positively impacting students' motivation and overall performance.

5.8 Promote Student Autonomy and Responsibility

Educators should empower students to take ownership of their learning journey. Schools can incorporate activities encouraging independent research, critical thinking, and self-assessment, fostering a sense of responsibility for academic progress.

5.9 Integrate Real-World Applications

Teachers should consistently connect classroom concepts to real-life scenarios, highlighting the practical relevance of the taught subjects. This approach not only enhances students' understanding but also promotes the application of knowledge in everyday situations.

5.10. Engage Parents and Guardians

Schools should actively involve parents and guardians in their children's education. Regular communication, parent-teacher conferences, and involvement in school activities can create a collaborative partnership that supports students' learning and holistic development.

References

- Akçayır, M., & Akçayır, G. (2016). The flipped classroom: A review of its advantages and challenges. *Computers & Education*, 101, 201-215.
- Bandura, A. (1997). Self-efficacy: The exercise of control. Freeman.
- Barrows, H. S. (2007). Problem-based learning: An overview. In H. S. Barrows (Ed.), *Problem-based learning applied to medical education* (pp. 1-12). Southern Illinois University School of Medicine.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7-73.
- Bolton, G. (2014). *Reflective practice: Writing and professional development* (4th ed.). Sage.
- Boud, D., Keogh, R., & Walker, D. (2013). *Reflection: Turning experience into learning*. Routledge.
- Buck Institute for Education. (2021). What is inquiry-based learning? Retrieved from https://www.bie.org/about/what_is_pbl/inquiry_based_learning
- Chang, C. Y., Panjaburee, P., Lin, H. C., Lai, C. L., & Hwang, G. H. (2022). Effects of online strategies on students' learning performance, self-efficacy, self-regulation and critical thinking in university online courses. *Educational Technology Research and Development*, 1-20.
- Chen, P., Lambert, A. D., & Guidry, K. R. (2018). Engaging online learners: The impact of Web-based learning technology on college student engagement. *Computers & Education*, 126, 98-107.
- Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*. Jossey-Bass.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Heath.
- Echevarria, J., Vogt, M. E., & Short, D. J. (2017). *Making content comprehensible for English learners: The SIOP® model* (5th ed.). Pearson.
- Emmer, E. T., Evertson, C. M., & Anderson, L. M. (2015). Effective classroom management at the beginning of the school year. *Elementary School Journal*, 115(3), 387-410.
- Ferguson, L. M. (2010). The influence of reflective practice on clinical reasoning in novice occupational therapists. *Canadian Journal of Occupational Therapy*, 77(5), 292-300.
- Fisher, K. R., Hirsh-Pasek, K., & Golinkoff, R. M. (2013). Conceptual split? Parents' and experts' perceptions of play in the 21st century. *Journal of Applied Developmental Psychology*, 34(3), 148-157.
- Fleming, N. D., & Mills, C. (1992). Not another inventory, rather a catalyst for reflection. *To Improve the Academy*, 11, 137-155.

- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59-109.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. Basic Books.
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). Teachers College Press.
- Gregory, K. & Chapman, C. (2013). Differentiated instructional strategies in practice: Training, implementation, and reflection. *Journal of Curriculum and Instruction*, 7(2), 25-45.
- Harlen, W. (2015). Teaching science for understanding in elementary and middle schools. *Journal of Science Teacher Education*, 26(3), 211-234.
- Harris, A., & Goodall, J. (2008). Do parents know they matter? Engaging all parents in learning. *Educational Research*, 50(3), 277-289.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. Routledge.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of educational research*, 77(1), 81-112.
- Hattie, J., & Timperley, H. (2019). The power of feedback. *Review of Educational Research*, 81(2), 273-313.
- Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Interaction Book Company.
- Johnson, D. W., & Johnson, R. T. (2020). Cooperative learning. In *Handbook of Research on Learning and Instruction* (pp. 141-164). Routledge.
- Kalyuga, S., Ayres, P., Chandler, P., & Sweller, J. (2003). The expertise reversal effect. *Educational Psychologist*, 38(1), 23-31.
- Kay, R. (2012). Exploring the use of video podcasts in education: A comprehensive review of the literature. *Computers in Human Behavior*, 28(3), 820-831.
- Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, 41(2), 75-86.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.
- Korthagen, F. (2017). Inconvenient truths about teacher learning: Towards professional development 3.0. *Teachers and Teaching*, 23(4), 387-405.
- Ludwig, J., & Phillips, D. (2007). The benefits and costs of Head Start. *Social Policy Report*, 21(2), 3-22.
- Marzano, R. J. (2007). *The art and science of teaching: A comprehensive framework for effective instruction*. ASCD.
- Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student*
- Mayer, R. E. (2008). *Learning and instruction*. Pearson Education.
- McCarthy, J. (2020). *Differentiated instruction: Different strategies for different learners*. Routledge.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass.
- Moon, J. A. (1999). *Reflection in learning and professional development: Theory and practice*. Rutledge.
- Ng, W., Nicholas, H., & Williams, A. (2012). The school and the Facebook: Exploring the uses of social networking sites in educational contexts. In W. Ng & P. Wankel (Eds.), *Educating for advanced foreign language capacities: Constructs, curriculum, instruction, assessment* (pp. 133-146). Palgrave Macmillan.
- Pianta, R. C. (2006). Classroom management and relationships between children and teachers: Implications for research and practice. In R. C. Pianta, M. J. Cox, & K. L. Snow (Eds.), *School readiness and the transition to kindergarten in the era of accountability* (pp. 151-175). Brookes Publishing.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of engineering education*, 93(3), 223-231.
- Ramos, K., Wolf, E. J., & Hauber-Özer, M. (2021). Teaching for global competence: A responsibility of teacher educators. *Journal of Research in Childhood Education*, 35(2), 311-330.
- Rimm-Kaufman, S. E., & Sawyer, B. E. (2004). Primary-grade teachers' self-efficacy beliefs, attitudes toward teaching, and discipline and teaching practice priorities in relation to the responsive classroom approach. *The Elementary School Journal*, 104(4), 321-341.

- Roorda, D. L., Koomen, H. M. Y., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research*, 81(4), 493-529.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Schön, D. A. (1987). Educating the reflective practitioner. Jossey-Bass.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22.
- Smith, A., & Johnson, B. (2019). The effects of reflective inquiry on academic performance in high school students. *Journal of Educational Psychology*, 45(2), 123-145.
- Smith, L. R., & Johnson, D. L. (2019). Active learning strategies: Evidence-based practices for educators. Rowman & Littlefield.
- Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). Preventing reading difficulties in young children. National Academies Press.
- Sung, Y.-T., Chang, K.-E., & Liu, T.-C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education*, 94, 252-275.
- Tomlinson, C. A. (2005). Differentiated instruction in the classroom: A practical guide. ASCD.
- Tomlinson, C. A. (2017). How to differentiate instruction in academically diverse classrooms. ASCD.
- Tomlinson, C. A., & Moon, T. R. (2013). Assessment, grading, and differentiation. ASCD.
- Toro, V., Camacho-Minuche, G., Pinza-Tapia, E., & Paredes, F. (2019). The Use of the Communicative Language Teaching Approach to Improve Students' Oral Skills. *English Language Teaching*, 12(1), 110-118.
- Van Scoter, P., & Ellis, A. (2018). The impact of educational technology on student achievement: Evidence from a large-scale study. *Educational Technology Research and Development*, 66(1), 53-73.
- Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.
- Wang, F. H., & Hsu, H. Y. (2019). Integrating technology into classroom teaching: A case study of a Taiwan university. *Education and Information Technologies*, 24(4), 2323-2342.
- Wentzel, K. R. (2009). Peers and academic functioning at school. In K. H. Rubin, W. M.
- Wiggins, G., & McTighe, J. (2005). Understanding by design. ASCD.
- Wong, H. K., & Wong, R. T. (2018). The first days of school: How to be an effective teacher (5th ed.). Harry K. Wong Publications, Inc.
- Zeichner, K. M., & Liston, D. P. (2013). Reflective teaching: An introduction. Routledge.