

The Relationship Between Selected Teaching Approaches and Students' Performance in English Periodic Exams

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Abstract: This study aimed to determine the relationship between teachers' use of selected teaching approaches and students' academic performance in English. Employing a quantitative design, data were analyzed using mean, t-test, and Pearson's r. Results indicated a moderately extensive use of the selected approaches. However, student performance was low overall, with no significant difference by gender. A novel moderate correlation was established, leading to the rejection of the null hypothesis. The primary contribution is the empirical evidence linking specific pedagogical strategies to student outcomes. A key practical implication is the need for targeted teacher training and retooling on effective methods like inquiry-based and analytical approaches. It is recommended that the Department of Education integrate such pedagogical training into its annual review programs to enhance instructional quality and student achievement.

Keywords: Academic Performance, Periodic Exams, Selected Teaching Approaches

A. Introduction

Teachers in the field employ a variety of teaching approaches and strategies to access better understanding and effective learning (Munna & Kalam, 2021). These approaches, methods, and strategies are vehicles for the teacher to achieve the long-range curriculum objectives. The effectiveness of curriculum is assessed through the achievement or performance of students in examinations and in creating or producing the desired output as evidence of learning (Adom et al., 2020; Christie & Lingard, 2020; Scott, 2020). This study is focused on assessing the teachers' utilization of selected approaches in teaching English and the performance of students in periodic examinations. In many countries, social studies teachers are under increased pressure to meet challenging objectives set by curriculum standards for the promotion of cognitive and social literacy among students in the basic education levels (Levy et al., 2023). To realize this, thinking, problem-solving, and communicating standards are the commonly used approaches in teaching and learning (Almulla & Al-Rahmi, 2023). By employing these in the classrooms, there is still a need to increase the performance of students in various assessment initiatives

given by the state through the Department of Public Instruction. Along this line, educators heightened the involvement of students in seeing how these skills are practiced outside of school in a variety of organizations contending with social issues. As much as possible, it makes sense to involve them in such work, either through immersions, internships, visits, interviews, or simulations. Alternatively, much of this work can also be staged as historical simulations calling for decision-making set in the past.

In the Philippines, as evidenced by the performance of students in the National Achievement Test (NAT) result, some regions performed lower than the median or average standard. As assessed by educators, this satisfactory performance can be attributed to pedagogy and assessment modes employed by the teachers in the teaching-learning process. He added that teaching strategies and approaches are vital elements of effective delivery of instructions. These are significant components in the teaching-learning process. As the term "significant" suggests, this cannot be taken away from the cycle. With this result, educators remediate this by using learning approaches and strategies within the real-world contexts and strategies that are suited to the level of the learners (Nilimaa, 2023). Students sharpen their abilities while gaining an appetite for the work at hand (Gray et al., 2025). Because they are rooted in the here and now, young ones find the challenges invigorating and intriguing. Caring about the tasks, they invest to a greater degree and emerge with a firmer and deeper grasp of the key concepts to be learned. If properly staged, historical simulations can also deliver passionate connections to provoke deep and satisfying learning.

In Davao City, Region XI's satisfactory performance in English became one of the topics of discussion in the academe (Cemini & Gempes, 2025). Teachers were alarmed with the results of exams given by the school, division, and regional offices of the DepED. This scene was given attention by the teachers. Possible factors affecting the scholastic performance of students were explored. Conferences and brainstorming among teachers and experts were done in order to identify the causes of the low performance. Likewise, trainings on pedagogy were designed and implemented based on the belief that this could be a remedy for the low performance of the students. With the above situations, the researcher was motivated to embark on and do research on teachers' utilization of selected teaching approaches in secondary social studies. The product of this study would provide the agency concerned and the teachers of English a concrete mapping of how they utilized the selected teaching approaches and their impact on the academic achievement of students.

In a classroom setting, the decision to employ an appropriate teaching method is anchored on a rationale that every student has the right to receive a quality system of instruction (Ma, 2021). Students differ in personal attributes, mental ability, and potential for growth and self-development. Correspondingly, teachers also differ in

experiences and insights gained from innumerable classroom encounters amidst a wide range of learning situations. English is one of the academic disciplines in the Basic Education in the Secondary Level of the Philippine educational system. In many countries, English teachers are under increased pressure to meet challenging objectives set by state or provincial curriculum standards. To meet this mental construct, problem-solving and communicating standards, it pays to involve students in seeing how these skills are learned and practiced outside of school in a variety of organizations contending with social issues and problems (Thornhill-Miller et al., 2023).

According to Renzulli et al. (2021), by employing such learning strategies within a real-world context, students sharpen their abilities while gaining an appetite for the work at hand. Because they are rooted in the here and now, young ones find the challenges invigorating and intriguing. Caring about the tasks, they invest to a greater degree and emerge with a firmer and deeper grasp of the key concepts. If properly staged, historical simulations can also deliver passionate connections to provoke deep learning. Such is the promise of Newman's concept of authentic teaching that involves students in authentic intellectual work, often outside of school (Dolapcioglu & Doğanay, 2022). Instead of busywork repetitive tasks that require little thought and involve mere scooping, smashing, memorizing, and regurgitating, Newman's approach immerses students in challenges that demand imagination, resourcefulness, persistence, and stamina.

According to Yazan (2022), the conceptual framework in teaching English is research, reflection, learning, and leading. Students will be given the opportunity to review, analyze, discuss, and apply research concepts from diverse perspectives in the society, including political paradigms and deep inquiry, in order to reflect on their own practices as they explore, observe, and practice the concepts from classrooms to the community. Reflection will also be integrated into students' learning opportunities through the production of written essays and analyses of observations, social insights, and experiences to help students take advantage of the analytical and problem-solving skills that comprise critical reflection on one's personal philosophy. Teachers, likewise, must be equipped with the necessary pedagogical requirements by participating in trainings for secondary teachers with a comprehensive overview of the most effective approaches in planning, implementing, managing, and assessing successful and effective learning experiences for students.

Darling-Hammond et al. (2020) said that in enriching the pedagogy, emphasis will be placed on exploring the relationship between educational theory and the development of practical teaching techniques for everyday use in the secondary classroom. Even though some of these activities may be staged or simulated, they still pass the test of authenticity because they meet the following criteria:(1) They are rooted in issues, challenges, or decisions that people face in the world; (2) they are

genuine; (3) the act of wrestling with these challenges is purposive and saturated with meaning and significance; (4) students can see a payoff in the future for work well done and skills acquired. Teachers are promoting learning that increases student productivity, motivation, and engagement.

B. Methods

I used a descriptive-correlational research design. This model is used to obtain information about current state phenomena to describe what exists regarding variables or conditions in a situation. The methods used vary, ranging from surveys, which describe the status quo, and correlational studies, which investigate relationships between variables, to developmental studies, which attempt to determine change over time. Descriptive research is also called statistical research. The primary purpose of this type of research is to describe the data and characteristics of what is being studied. The idea behind this type of research is to study frequencies, averages, and other statistical calculations. Descriptive research is primarily conducted when a researcher wants to gain a better understanding of a topic. This research is quantitative and utilizes surveys and panels, as well as the use of probability samples. Descriptive research is an exploration of a specific phenomenon that exists. The details of the facts will not be known. The facts of the phenomenon are unknown to people. This method was used because the focus of this two-variable research study was to measure the significance of the relationship between the level of teacher utilization of a particular teaching approach and student academic performance in periodic English tests.

The respondents of this study were fourth-year students of Daniel R. Aguinaldo National High School, Matina, Davao City Division, Region XI. Daniel R. Aguinaldo National High School, Davao City Division, is located in the 1st Congressional District of Davao City in Region XI. It is a government institution that provides quality basic education to all youth in the region. The school was named after Daniel R. Aguinaldo in recognition of his tremendous efforts in establishing the school many years ago. The researcher used a random sampling technique by using at least 20% of the population in selecting the study participants. Random sampling is the best random sampling design because there are no restrictions imposed and every member of the population has an equal chance of being included in the sample.

This study involved 243 participants. Specifically, they were asked to answer a questionnaire about English teachers' approaches to teaching English. The questionnaire was developed based on several readings, references, and related literature. The indicator variables studied were carefully considered and refined after several literature reviews. The selected key points naturally represented the essence, substance, and objectives of the study. The first draft of the research instrument was reviewed to refine its presentation and content. Each questionnaire item was carefully selected, and the entire instrument was submitted to experts for

review and validation. Final revisions were made by incorporating corrections, comments, and suggestions from the experts before the instrument was ready for distribution. To obtain accurate and truthful responses from the participants, the research instrument underwent validity and reliability testing. In this study, the experts selected to validate the instrument were provided with literature and readings highlighting the theories, paradigms, and principles underlying the instrument's construction and framing to provide answers to the research questions. During the validation process, the five experts who reviewed and examined the instrument were given an evaluation sheet assessing the instrument's construction and technical aspects. The following are things that are considered in the research evaluation instrument: clarity and direction of the questions, presentation and organization of the questions, suitability of the questions, adequacy of the questions per category, achievement of objectives, objectivity, and suitability of the assessment scale.

C. Results and Discussion

Presentation of the analysis and interpretation is arranged according to the following subheadings: (1) extent of teachers' utilization of selected teaching approaches in English in terms of inquiry approach, cooperative-collaborative approach, content-based approach, socio-environmental approach, and analytical approach; (2) academic performance of students in the division periodic examination in English; (3) significance of the difference in the level of academic performance of students in the division periodic examination in English when grouped according to gender; (4) significance of the relationship between the level of utilization of selected teaching approaches and the academic performance of students in the division periodic examination in English.

Extent of Teachers' Utilization of Selected Teaching Approaches in English in Terms of Inquiry Approach

There are five items used to measure the level of teacher utilization in this particular approach. From the results of the study, the average ranking expressed from the highest to the lowest average ranking is providing the latest readings and journals on economics and other disciplines in social sciences obtained an average ranking of 2.56 which is recommended as high; conducting investigations on the causes and impacts of recent natural disasters obtained an average ranking of 2.53 with a high descriptive level; holding discussions on current social issues (in the local, national, international scope) obtained an average ranking of 2.50 which is considered high; explaining the movement of the dollar and foreign products in the market obtained an average ranking of 2.49 which is categorized as medium; assigning students to visit museums/parks available in the city obtained an average ranking of 2.00 which offers medium. This particular indicator produced an overall average ranking of 2.42, which is classified as having a descriptive level equivalent to medium. From the

results of the study, it also appears that there are three items with high rankings, namely providing the latest readings and journals on economics and other disciplines in social sciences; holding discussions on current social issues (in the local, national, and international scope); and conducting investigations into the causes and effects of recent natural disasters. The findings revealed that English teachers enabled students to develop their inquiry skills by having them discuss local, national, and international social issues, including the causes of disasters in various regions of the country. Furthermore, teachers provided social science journals to motivate students to think and rethink various issues in economics and other social science disciplines.

On the other hand, two items received moderate ratings: assigning students to visit museums/parks in the city and explaining the movement of the dollar and foreign products in the market. Statistically, few teachers assign these types of assignments, perhaps for security or financial reasons. Teachers may need to be retrained on the dollar's movement and foreign products in the market. The results shown are in line with Romero-Ariza et al. (2019) statement that English teachers in the field need to be oriented towards using an inquiry approach in teaching this subject. The nature of this subject is based on knowledge, which requires inquiry skills. Furthermore, these findings align with King et al. (2021) statement that the inquiry approach is advanced through in-depth investigation of social topics worthy of study and discovery. This is a research effort aimed at finding answers to questions about a topic posed by students, teachers, or teachers working with students. To be most effective, the search for answers should be conducted in small groups of two to four people. This is done to provide all students with the opportunity to participate in discussions that lead to discovery. The use of this approach has a significant impact on student academic achievement.

Extent of Teachers' Utilization of Selected Teaching Approaches in English in terms of Cooperative-Collaborative Approach

There are five items used to measure the level of teacher utilization in this particular approach. The average ratings are presented from the highest to the lowest average rating: grouping students based on their interests and learning needs obtained an average rating of 2.57 with a descriptive value equivalent to high; providing activities based on tasks and objectives in English learning obtained an average rating of 2.56 with a descriptive value equivalent to high; setting group goals/targets in working on assignments resulted in an average rating of 2.52 with a descriptive value equivalent to high; providing projects that encourage student participation resulted in an average rating of 2.50 with a descriptive value equivalent to high; motivating students to achieve goals through teamwork obtained an average rating of 2.50 with a descriptive value equivalent to high. These specific indicators resulted in an overall average rating of 2.53 with a descriptive value equivalent to high.

The research results show that all items for this indicator received an average rating equivalent to high. The first ranking item is grouping students based on their interests and learning needs. This indicates that teachers consider individual differences and student learning styles. This finding aligns with Cardino & Ortega-Dela Cruz (2020), who stated that students will achieve their assigned goals or assignments better simply because teachers design them based on their interests, learning needs, and styles. The item with the lowest average rating, although in the high range, is providing projects that encourage student participation and motivate students to achieve goals through teamwork. This finding aligns with Pollock & Tolone (2020) statement that teachers assign additional projects to students after the assessment period. This is done to validate student learning. Teachers can determine whether students have learned concepts and acquired skills if they can produce something tangible as an output or peak performance. Furthermore, these findings align with Ruder et al. (2021) statement that the cooperative-collaborative approach, also known as team-based learning (TBL), is one in which students rely on each other for their own learning and are responsible for coming to class well-prepared. Students work together to effectively achieve goals or complete tasks assigned by the teacher. He further emphasized that students are more responsible and engaged when team-based learning is implemented. With this approach, the values of teamwork, discipline, and commitment are evident in various teaching and learning activities. This approach is not about explicit and systematic instruction. Rather, it is about having a teaching pedagogy that encompasses a variety of teaching and learning strategies and methods that best suit students' learning needs.

Extent of Teachers' Utilization of Selected Teaching Approaches in English in terms of Content-Based Approach

Five items were used to measure teachers' utilization of this specific approach. The average ratings were as follows: teaching english concepts based on content received an average rating of 2.60, which is considered high; encouraging students to question what they have read received an average rating of 2.56, which is considered high; conducting debates and arguments based on historical findings received an average rating of 2.53, which is considered high; asking students to synthesize long historical narratives received an average rating of 2.50, which is considered high; and generating themes from various social journals received an average rating of 2.40, which is considered moderate. This specific indicator of teachers' utilization of the selected teaching approach in English received an overall average rating of 2.51, which is considered high. As documented in the table, only one item received an average rating equivalent to moderate, specifically, generating themes from various social journals. This measure may be related to the large amount of learning material that teachers need to discuss in the assessment. Summarizing themes from what students have read in journals can be a good way to validate those students have truly understood or learned the material. This can be difficult, especially if teachers are not trained to conduct thematic analysis. This finding aligns with Morrison et al.

(2021) statement that educators recognize that to successfully complete academic tasks, subject content must prioritize exploring basic concepts, which are crucial for learning deeper ideas and constructs. Consistent with this notion, teachers facilitating the teaching and learning process must be equipped with a wealth of reading material to ensure smooth learning progress.

Extent of Teachers' Utilization of Selected Teaching Approaches in English in Terms of Socio-environment Approach

There are five items used to measure the level of teachers' utilization of this particular approach. The mean ratings are expressed as follows: making meaning of what students see while visiting the barangay obtained a mean rating (2.56) described as high; conducting tree planting activities to support community reforestation programs obtained a mean rating (2.50) described as high; critiquing documents related to economics—prices of basic commodities—obtained a mean rating (2.40) described as moderate; conducting research on a specific topic in social sciences obtained a mean rating (2.23) described as moderate; and conducting field studies related to social issues obtained a mean rating (1.60) described as moderate. This specific indicator of teachers' utilization of the selected teaching approach in English obtained an overall mean rating (2.25) described as moderate. The table shows that the item "conducting field studies related to social issues" received the lowest rating. This indicates that teachers do not require their students to study. This activity is a good activity to increase students' awareness of various social issues. As revealed in this study, teacher respondents used this approach moderately. As Wei et al. (2020) noted, the socio-environmental approach recognizes the relationship between individual appreciation of social issues and the context of the material, which then becomes a target for change for better learning. In this approach, participants are motivated to act collectively to change their perceptions of their social environment. The study's findings regarding this indicator are somewhat inconsistent with the author's statement above, as the average overall assessment of teachers' socio-environmental approach yielded only moderate descriptive scores.

Extent of Teachers' Utilization of Selected Teaching Approaches in English in Terms of Analytical Approach

Five items were used to measure teachers' level of utilization of this specific approach. These items are presented from highest to lowest average rating: warming up current political and economic issues received an average rating of 2.60, with a descriptive score equivalent to high; synthesizing long-form journal articles in English and economics received an average rating of 2.55, with a descriptive score equivalent to high; analyzing journal content in social sciences received an average rating of 2.53, with a descriptive score equivalent to high; creating thematic representations of historical writings in science received an average rating of 2.00, with a descriptive score equivalent to medium; and interpreting debates and

arguments (e.g., price increases, family income) received an average rating of 2.00, with a descriptive score equivalent to medium. This specific indicator of teachers' utilization of the selected English teaching approach yielded an overall average rating of 2.33, with a descriptive score equivalent to medium.

The table shows that three items received high ratings. The highest ranking was disseminating current political and economic issues, followed by synthesizing long-form journals in English and economics, and third was analyzing the content of journals in the social sciences. From these findings, it can be concluded that teachers focus more on an analytical approach, particularly in analyzing, synthesizing, and disseminating social issues and problems. This pedagogical initiative of teachers can be linked to the underlying idea of this study that an analytical approach is more appropriate for students. These findings support the initiative of Kleinheksel et al. (2020), who stated that an analytical approach requires one to analyze what one has learned from content, concepts, and experiences. If students are to solve problems, from limited concepts to social domains, teachers must learn to identify and break free from limiting mindsets and consider alternative solutions thoroughly and seriously. They must learn to confront the compulsions of the human mind that, by defeating objective analysis, close the mind to alternatives.

Summary on the Extent of Teachers' Utilization of Selected Teaching Approaches in English

Table 1 presents a summary of the level of utilization of selected teaching approaches in English by teachers. These indicators, along with their average scores, are presented as follows: The inquiry approach obtained an average score of 2.42, or moderate; the cooperative-collaborative approach obtained an average score of 2.53, or high; the content-based approach obtained an average score of 2.51, or high; the socio-environmental approach obtained an average score of 2.25, or moderate; and the analytical approach consolidated an average score of 2.33, or equivalent to a moderate qualitative score. The total average score for the variables measured based on the identified indicators was 2.40, which is classified as moderate.

Table 1. Summary on the Extent of Teachers' Utilization of Selected Teaching Approaches in English

No	Statements	Mean	Descriptive Equivalent
1	Inquiry Approach	2.42	Moderate
2	Cooperative-Collaborative Approach	2.53	High
3	Content-Based Approach	2.51	High
4	Socio-Environment Approach	2.25	Moderate
5	Analytical Approach	2.33	Moderate
Overall		2.4	Moderate

As seen in the table, there are two indicators that received high ratings, namely the cooperative-collaborative approach and the content-based approach. This means that the teachers use the cooperative-collaborative and content-based approaches in teaching English among the 4th grade students of Daniel R. Aguinaldo National High School. These approaches have been proven effective, especially in large classes. The classes consist of more than fifty (50) students, so the cooperative and collaborative approaches are usually used by the teachers.

The results of the study analyzed student academic achievement data in the English division periodic exams by section and gender. Male students obtained an average score of 58.28, with a moderate descriptive score, while female students obtained an average score of 58.75, with a moderate descriptive score. These two average scores resulted in a mean difference (0.47) favoring female students. Furthermore, it is noteworthy that of the 21 sections, only three (3) received high scores, while the rest received average scores. This finding aligns with the scenario outlined in the research background: In Davao City, Region XI, satisfactory English achievement is a topic of discussion in the academic community. Teachers are concerned about the exam results administered by schools, divisions, and the DepED regional office. These findings suggest that there are factors that need to be examined related to student achievement in the English division periodic exams.

Data on the significance of differences in student academic achievement in the periodic distribution when calculated by gender indicates that male students obtained an average score of 58.28 and female students obtained an average score of 58.75. The average scores obtained by both groups of respondents were on a moderate scale. These two average scores had a mean difference (0.47) favoring female students. When the difference between the two average scores was tested, a calculated t-value of 0.470 (NS) was obtained. This value was found to be lower than the tabular value of 1.98 ($0.470 < 1.98$) when the degrees of freedom were 241 ($df = N-2$). The calculated t-value of 0.470 indicates no significant difference in the academic performance of fourth-year male and female English students. Therefore, the hypothesis of no significant difference in student academic performance in the periodic distribution of exams when analyzed by gender was accepted.

The significance of the relationship between the level of utilization of selected teaching approaches by teachers and students' academic achievement in the division periodic exam, when the correlation of the two variables (X, Y) was tested, the data produced an r value of 496, which indicates a moderate correlation or substantial relationship. This means that there is a significant relationship between the two variables. It can be said that the variable x is related or associated with the variable y by 49 percent, and its variance can be attributed to other variables not included in this study. Because the calculated r value is higher than the table value of 0.195 at a significance level of 0.05, this causes the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a).

Research results indicate that students learn best when they are sufficiently exposed to a variety of teaching and learning activities. By using social learning methods, teachers have a measure of which teaching and learning strategies to employ to achieve the long-term curricular objectives of the curriculum implemented at the elementary-secondary education level. Approaches such as inquiry, cooperative-collaborative, content-based, socio-environmental, and analytical are appropriate for teaching social studies subjects because they offer students a variety of learning opportunities. Furthermore, these results align with Goyibova et al. (2025) and Sigalla & Kimario (2025) suggestion that appropriate teaching approaches that are appropriate for each student must be tailored to ensure maximum student learning. Therefore, teachers must ensure quality input for students.

D. Conclusions

In conclusion, this study found that while teachers utilize collaborative and content-based approaches frequently, the overall utilization of innovative teaching methods remains moderate. This moderate use is positively correlated with student performance, but the relationship is not strong, suggesting other factors are at play. Crucially, student performance remains unacceptably low, indicating a pressing need for the interventions outlined below. Schools and the Department of Education should move beyond simply promoting innovative methods. Training must be intensive, practical, and focused on the effective application of these strategies to directly impact learning outcomes. This includes coaching on how to adapt these methods for different topics and skill levels. Future research must investigate the other variables that explain student performance. This includes studying: Student-level factors: Socio-economic status, prior knowledge, learning motivation. School-level factors: Leadership, school culture, class size, availability of resources. External factors: Parental involvement, community support.

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Reference

Adom, D., Adu-Mensah, J., & Dake, D. A. (2020). Test, Measurement, and Evaluation: Understanding and Use of the Concepts in Education. *International Journal of Evaluation and Research in Education (IJERE)*, 9(1), 109. <https://doi.org/10.11591/ijere.v9i1.20457>

Almulla, M. A., & Al-Rahmi, W. M. (2023). Integrated Social Cognitive Theory with Learning Input Factors: The Effects of Problem-Solving Skills and Critical Thinking Skills on Learning Performance Sustainability. *Sustainability*, 15(5), 3978. <https://doi.org/10.3390/su15053978>

Cardino, J. M., & Ortega-Dela Cruz, R. A. (2020). Understanding of Learning Styles

and Teaching Strategies Towards Improving the Teaching and Learning of Mathematics. *LUMAT: International Journal on Math, Science and Technology Education*, 8(1). <https://doi.org/10.31129/LUMAT.8.1.1348>

Cemini, J., & Gempes, G. (2025). The Metacognition in Language Learning Among English Major Tertiary Students in Davao Region: A Convergent Mixed Methods Study. *International Journal of Multidisciplinary Studies in Higher Education*, 2(2), 76-101. <https://doi.org/10.70847/617047>

Christie, P., & Lingard, B. (2020). *Teachers and Schooling Making a Difference: Productive Pedagogies, Assessment and Performance*. Routledge.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for Educational Practice of the Science of Learning and Development. *Applied Developmental Science*, 24(2), 97-140. <https://doi.org/10.1080/10888691.2018.1537791>

Dolapcioglu, S., & Doğanay, A. (2022). Development of Critical Thinking in Mathematics Classes via Authentic Learning: An Action Research. *International Journal of Mathematical Education in Science and Technology*, 53(6), 1363-1386. <https://doi.org/10.1080/0020739X.2020.1819573>

Goyibova, N., Muslimov, N., Sabirova, G., Kadirova, N., & Samatova, B. (2025). Differentiation Approach in Education: Tailoring Instruction for Diverse Learner Needs. *MethodsX*, 14, 103163. <https://doi.org/10.1016/j.mex.2025.103163>

Gray, T., Dallat, C., & Jackson, P. (2025). The Pendulum Swings: Developing a Healthy Risk Appetite for Outdoor Play, Adventurous Learning, and Child Brain Development. In *Risk and Outdoor Play* (pp. 37-56). Springer Nature Singapore. https://doi.org/10.1007/978-981-96-5455-0_3

King, G., Keohane, R. O., & Verba, S. (2021). *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press.

Kleinhekkel, A. J., Rockich-Winston, N., Tawfik, H., & Wyatt, T. R. (2020). Demystifying Content Analysis. *American Journal of Pharmaceutical Education*, 84(1), 7113. <https://doi.org/10.5688/ajpe7113>

Levy, B. L. M., Busey, C. L., Cuenca, A., Evans, R. W., Halvorsen, A.-L., Ho, L.-C., Kahne, J., Kissling, M. T., Lo, J. C., McAvoy, P., & McGrew, S. (2023). Social Studies Education Research for Sustainable Democratic Societies: Addressing Persistent Civic Challenges. *Theory & Research in Social Education*, 51(1), 1-46. <https://doi.org/10.1080/00933104.2022.2158149>

Ma, L. (2021). An Immersive Context Teaching Method for College English Based on Artificial Intelligence and Machine Learning in Virtual Reality Technology. *Mobile Information Systems*, 2021, 1-7. <https://doi.org/10.1155/2021/2637439>

Morrison, J., Frost, J., Gotch, C., McDuffie, A. R., Austin, B., & French, B. (2021). Teachers' Role in Students' Learning at a Project-Based STEM High School: Implications for Teacher Education. *International Journal of Science and Mathematics Education*, 19(6), 1103-1123. <https://doi.org/10.1007/s10763-020-10108-3>

Munna, A. S., & Kalam, M. A. (2021). Teaching and Learning Process to Enhance

Teaching Effectiveness: Literature Review. *International Journal of Humanities and Innovation (IJHI)*, 4(1), 1-4. <https://doi.org/10.33750/ijhi.v4i1.102>

Nilimaa, J. (2023). New Examination Approach for Real-World Creativity and Problem-Solving Skills in Mathematics. *Trends in Higher Education*, 2(3), 477-495. <https://doi.org/10.3390/higheredu2030028>

Pollock, J. E., & Tolone, L. J. (2020). *Improving Student Learning One Teacher at a Time*. ASCD.

Renzulli, J. S., Gentry, M., & Reis, S. M. (2021). *Enrichment Clusters: A Practical Plan for Real-World, Student-Driven Learning*. Routledge.

Romero-Ariza, M., Quesada, A., Abril, A. M., Sorensen, P., & Oliver, M. C. (2019). Highly Recommended and Poorly Used: English and Spanish Science Teachers' Views of Inquiry-based Learning (IBL) and Its Enactment. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(1). <https://doi.org/10.29333/ejmste/109658>

Ruder, P., Maier, M. H., & Simkins, S. P. (2021). Getting Started with Team-Based Learning (TBL): An Introduction. *The Journal of Economic Education*, 52(3), 220-230. <https://doi.org/10.1080/00220485.2021.1925187>

Scott, I. M. (2020). Beyond 'driving': The Relationship between Assessment, Performance and Learning. *Medical Education*, 54(1), 54-59. <https://doi.org/10.1111/medu.13935>

Sigalla, L. E., & Kimario, H. F. (2025). Customizing Classrooms: How Teachers Can Adapt Education to Fit Student Needs. *European Journal of Contemporary Education and E-Learning*, 3(3), 38-59. [https://doi.org/10.59324/ejceel.2025.3\(3\).04](https://doi.org/10.59324/ejceel.2025.3(3).04)

Thornhill-Miller, B., Camarda, A., Mercier, M., Burkhardt, J.-M., Morisseau, T., Bourgeois-Bougrine, S., Vinchon, F., El Hayek, S., Augereau-Landais, M., Mourey, F., Feybesse, C., Sundquist, D., & Lubart, T. (2023). Creativity, Critical Thinking, Communication, and Collaboration: Assessment, Certification, and Promotion of 21st Century Skills for the Future of Work and Education. *Journal of Intelligence*, 11(3), 54. <https://doi.org/10.3390/jintelligence11030054>

Wei, C. A., Deaton, M. L., Shume, T. J., Berardo, R., & Burnside, W. R. (2020). A Framework for Teaching Socio-Environmental Problem-Solving. *Journal of Environmental Studies and Sciences*, 10(4), 467-477. <https://doi.org/10.1007/s13412-020-00603-y>

Yazan, B. (2022). A Conceptual Framework to Understand Language Teacher Identities. *Second Language Teacher Education*, 1(2), 185-208. <https://doi.org/10.1558/slte.24908>