



SIMSS-7 UNLEASHED: TRANSFORMING ACADEMIC PERFORMANCE IN SOCIAL SCIENCE

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ABSTRACT

This research utilized a quasi-experimental research design to determine the effectiveness of Strategic Intervention Material in Social Science 7 on students' academic performance. This research used two groups to conduct the study. The control group represented the group with no intervention, while the experimental group utilized the intervention, which is the SIM in Social Science 7. Both groups were taught the same lesson in the third quarter; however, the experimental group utilized the SIM. Before the start of the quarter, the students were given a pretest. After a quarter, the students were given a posttest. This study's results indicated a significant difference in the pretest and posttest of the control and experimental groups. The noteworthy result of this study is that although there was a substantial improvement in the student scores in the control group, there was a significant increase in the students' scores for the experimental group. There was a noteworthy considerable difference in the posttest, indicating a significant difference in the posttest scores of the experimental group with strategic intervention materials rather than the control group without such materials. The study recommends that teachers utilize and create Strategic Intervention Material in teaching whenever they deem it necessary as another tool for instruction or as an intervention to improve students' academic achievement, and such innovation may be supported by the lower to the upper echelon of the Department of Education.

KEYWORDS: SIMMS-7, Strategic Intervention Materials, Social Science 7, Quasi-experimental

I. INTRODUCTION

Strategic Intervention Materials are materials or teaching aids teachers utilize to help pupils master a competency-based skill they could not attain during regular classroom instruction. It allows kids to learn new topics (Bukoye, 2019). Most of these resources are created by instructors to help their pupils know and give varied learning experiences and possibilities (Bukoye, 2019).

Strategic Intervention Materials, or SIM in the Philippine educational system, is an educational instrument that contributes to high-quality education by assisting students who struggle academically (De Guzman, 2022). SIM has historically been employed as a study topic in various fields. Its function in teaching and learning is one of the most pressing and frequently debated problems in current education policy since it can potentially improve student learning.

Academic performance is recognized as a criterion for judging students' accomplishments (Masood et al., 2021, Escalaw, 2021). Teachers and educators frequently use classroom performance, graduation rates, and standardized test scores to assess academic success. Many factors influence educational achievement, including parental education and income, teacher topic expertise, absenteeism, textbook availability and accessibility, libraries, labs, nutrition, and many others.

Learning poverty rates are likely to have increased since the pandemic's beginning due to COVID-19 interruptions and closures. The 2022 simulations reported in this Study indicate that worldwide learning poverty in low- and middle-income nations has increased to an estimated 70%. This assumption is based on the most recent data and information available on pandemic learning and effects (World Bank, 2022).

There will not be any spontaneous acceleration or recovery. Reopening schools alone will not heal the pandemic's wounds, much less deal with the problems that led to the severe levels of learning poverty before COVID. Since 2015, global growth has remained sluggish, indicating that educational institutions still need to reduce learning poverty successfully. This must change to provide opportunities for all children, and this transformation will entail political and technical developments to ensure that all children and youth have access to effective methods for enhancing fundamental learning (World Bank, 2022).

According to the Asian Development Bank (2022), there is convincing evidence that the closure of schools during the COVID-19 pandemic resulted in considerable worldwide learning losses. If these losses are not addressed, there is a danger that a generation of students may have low lifetime economic prospects.



Thus, future productivity will decrease on a personal and societal level. The ADB suggested a strategy for addressing learners' learning gaps and loss of knowledge. One of the suggestions is to adapt the teaching to the various levels of student learning. The researcher will suggest the Strategic Intervention Material in Social Science 7 for Grade 7 Social Science for least mastered competencies based on the ADB suggestion, which is pertinent to this research.

The Curriculum Guide or Curriculum for Social Science has been created so that learning entails recognizing, accepting, appreciating, and developing the student's already-existing skills while also broadening the range of academic content and knowledge that is accessible to students, including interactions in social contexts (MELCs, 2016; Course Guide at Social Science).

In retrospect, the Department of Education announced the DepEd Learning Recovery Plan to eliminate achievement gaps through rapid testing, diagnostic analysis, and action (DepEd Order No. 025, s.2022). DepEd Calamba schools administer diagnostic assessments to students to determine what they learned the previous school year. Based on the previous statement, the Superintendent of the Schools Division urged parents at the Calamba City School for the Arts School's first parent orientation to devote more attention to correcting the student learning gaps and learning loss caused by the two-year delivery of remote learning.

This study aims to examine the impact of Social Science Strategic Intervention Materials for Grade 7. This SIM or learning material is one example of why it is essential to keep practicing despite obstacles. It also demonstrates how adaptive, inventive, and flexible instructors are under every circumstance. The researcher thinks that the technological innovation in education known as "SIMSS-7" or Strategic Intervention Materials in Social Science 7 is a tool that may help teachers at Calamba City School for the Arts School in Calamba, Laguna, deliver high-quality instruction while also catering to students' needs for meaningful and entertaining learning.

Also, the researcher considered that the pedagogical innovation of using the teacher-made Strategic Intervention Materials in Social Science - (SIMSS-7) would benefit the teachers, parents, and children at the researcher's current institution, Calamba City School for the Arts, Calamba City, Province of Laguna, Philippines.

Several factors beyond intelligence quotient (IQ) influence academic performance, including motivational factors, socioeconomic status, parental involvement, and teacher engagement (Zhao et al., 2021). Exam performance improves with training, underscoring the need for interventions that address students' expectations and learning approaches (Tomlinson et al., 2022).

Self-esteem plays a critical role in academic success, as it motivates engagement and fosters achievement (Fang, 2016; Filippello et al., 2019). Social science research is also pivotal in addressing societal challenges, aiding in the understanding of human behavior, and fostering civic responsibility (Coleman, 2021; Ugwuanyi, 2023).

Strategic Intervention Materials (SIMs) have proven effective in enhancing student performance across various subjects, including science, mathematics, and social studies. These materials are designed to address students' least-mastered competencies and promote engagement. Studies have shown significant improvement in students' test scores and understanding of complex concepts when SIMs are used (Aranda et al., 2019; De Guzman, 2022; Sinco, 2020; Escalaw, 2021, Escalaw, 2022). Furthermore, tailored and context-specific SIMs contribute to deeper learning and retention, emphasizing the importance of using diverse teaching strategies to cater to individual learning needs (Rosal et al., 2022; Suarez & Casinillo, 2020).

The effectiveness of SIMs is highlighted in various research, demonstrating their role in fostering self-paced learning and collaborative activities that enhance critical thinking and academic achievement. These materials not only address gaps in knowledge but also encourage students to develop independent learning strategies, making them valuable tools for improving education outcomes (Casinillo et al., 2020; Camacho & Macasinag, 2018).

II. METHODOLOGY

This study uses a quasi-experimental research design and quantitative methodology to investigate the impact of a specific intervention on a group of students at Calamba City School for the Arts. The research will be conducted using a quasi-experimental approach, with measures taken both before and after therapy. A qualitative analysis will be used to examine the issues and suggest strategic intervention materials.

The study will involve 92 grade 7 students, with two participant groups: the experimental group and the comparison group. The fishbowl method was employed to determine the experimental and comparison groups, with 30 students in each group. The study will use a detailed lesson plan, table of specifications, pretest and posttest, and strategic intervention materials validated by the school's curriculum expert.

The Detailed Lesson Plan (DLP) in the K-12 teaching model is used to fill learning gaps in Social Science 7. The DLP uses interactive techniques to improve comprehension and retention, including group projects, talks, and multimedia presentations. Students' understanding of the material is assessed via a 30-item exam given as a pretest and posttest to gauge their progress before and after the intervention.



A Table of Specifications was designed for the third quarter to align with set competencies, ensuring comprehensive coverage of the competencies. The SIMSS-7 teaching tool is well-designed to demonstrate instructors' flexibility and adaptability when imparting knowledge.

The study aims to identify the most essential learning competencies (MELCs) in Social Science 7, which include understanding religion's role in culture, politics, and society, discussing the experiences and implications of world wars on Asian nations' history, and recognizing the importance of values and respect in their environment.

The teacher uses the SIMSS-7 to enhance students' mental abilities, emotional intelligence, and psychomotor skills. The Strategic Intervention Material (SIM) is designed to develop the least mastered skills of learners, including Guide Card, Activity Card, Assessment Card, Enrichment Card, Answer Card, and References. The SIM is easy to read, understand, and written for grade 7 students, providing new insights and engaging worksheets.

Data was gathered through a 30-item pretest and posttest, validated by curriculum experts, and parents were informed of the study's objectives. Participants were given an exam before and after a quarter, and the data was analyzed using statistical tools like mean, standard deviation, and t-test. Anecdotal notes, student narratives, evaluations of relevant studies, and expert reviews for triangulation were used for qualitative data analysis.

The researcher used narrative research design to investigate the written representation of human experience and narrated the implementation of the learning intervention. Triangulation was used to ensure the reliability and validity of the results, comparing the teacher's experiences with expert views, related literature, and students' experiences.

III. RESULT AND DISCUSSION

This research thoroughly presented and examined the results, focusing on how well students at Calamba City School for the Arts, within the Schools Division of Calamba City, perform academically in relation to the Strategic Intervention Materials in Social Science 7 (SIMSS-7). After gathering, analyzing, and evaluating the data, it was found that the pretest scores of the control group were slightly lower than those of the experimental group, and the posttest scores of the control group were also lower than those of the experimental group.

Table 1.

Comparative Analysis on Pretest and Posttest Scores of Control Group

Test	Mean	Mean Difference	Std. Deviation	Std. Error Mean	T	df	Sig.	Decision	Interpretation
Pretest	12.83		2.914	.532	-				
Posttest	21.17	8.33	3.018	.551	19.638	29	.000	Reject H0	With Significant Difference

Test used= Paired samples t-test, .05 level of significance

The mean pretest score for the control group was 12.83 ($M = 12.83$, $SD = 2.914$), while the mean posttest score was 21.17 ($M = 21.17$, $SD = 3.018$). The mean difference between the posttest and pretest scores was 8.33 ($M_{diff} = 8.33$, $SE = 0.532$), and this difference was found to be statistically significant ($t(29) = -19.638$, $p < .001$). Therefore, the null hypothesis (H_0) was rejected, indicating a significant difference between pretest and posttest scores in the control group.

The control group's significant increase in mean scores from the pretest (12.83) to the posttest (21.17) underscores that something changed within the group during the study period. This improvement suggests that the educational program or external factors positively affected their performance. To fully assess the implications, it is essential to determine the practical significance of this improvement.

The context of the study and its educational goals should be considered. If an 8.33-point increase corresponds to a meaningful improvement in the subject matter, it could have substantial implications for the curriculum or teaching methods. The findings raise questions about the instructional strategies employed during the study.

Investigating what teaching methods, materials, or interventions contributed to such significant gains in the control group is essential. Understanding these strategies can inform future educational practices and benefit other student populations (Escalaw, 2024). The substantial improvement in the control group's scores from pretest to posttest indicates the effectiveness of some aspect of the educational program or intervention other than the use of Strategic Intervention Materials. Therefore, students in the control group using the DepEd Approach, the Daily Lesson Plan (DLP), and the teaching method had significant implications for the student's academic outcomes in Grade 7 Social Science (Tomlinson et al., 2022). By default, it is expected that there will be an increase in the student's scores after teaching.



Table 2

Comparative Analysis on Pretest and Posttest Scores of Experimental Group

Test	Mean	N	Std. Deviation	Std. Error Mean	t	Df	Sig.	Decision	Interpretation
Pretest	15.07		3.062	.599					
Posttest	28.20	13.133	2.188	.399	-21.673	29	.000	Reject H0	With Significant Difference

Test used: Paired samples t-test, .05 level of significance, Intervention: Use of Strategic Intervention Materials

Similarly, the t-test for the experimental group showed a statistically significant improvement in posttest scores following the use of SIMSS-7. A comparison of posttest scores between the two groups revealed a significant difference, with the experimental group showing a more substantial improvement than the control group.

A paired-sample t-test was performed to examine the difference between pretest and posttest scores in the experimental group. The results are summarized in Table 4. As indicated in Table 4, the experimental group's mean pretest score was 15.07 (M = 15.07, SD = 13.133), while the mean posttest score was 28.20 (M = 28.20, SD = 2.188). The mean Difference between the posttest and pretest scores was 13.13 (M_diff = 13.13, SE = 0.559). This Difference was found to be highly statistically significant (t(29) = -21.673, p < .001). Consequently, the null hypothesis (H0) was rejected, signifying a substantial and significant difference between the pretest and posttest scores in the experiment.

The results suggest a noteworthy improvement in the experimental group's scores from the pretest to the posttest after using Strategic Intervention Materials, with a mean increase of 13.13 points. To better understand this improvement's significance, further exploration of the practical implications and effect size measures is recommended.

The substantial and statistically significant improvement in the experimental group's scores from pretest to posttest suggests that the Strategic Intervention Materials significantly impacted their learning outcomes. However, further exploration and consideration of the curriculum's goals are necessary to fully understand this improvement's educational implications and guide future educational practices.

Constructivism corroborated the study's findings. Humans acquire meaning and understanding depending on their experiences, which claims this notion (Sarbah, 2020; Escalaw, 2023). Regardless of how it is taught, constructivism claims all knowledge is created from the learner's prior knowledge. Learners engage with their surroundings, reflect on past experiences, build models, and apply new information to what they already know. Given these constructivist principles, teachers must always provide their pupils the freedom to learn on their own.

Language can also be utilized to influence contemplative thoughts and behaviors. Getting different perspectives is another benefit of collaboration. The SIMs-7 innovation calls for student interaction with peers or other learners, which is crucial and is backed by the social constructivism theory. Social Science 7 students encourage learning by engaging in activities, including activity cards, assessment cards, enrichment cards, and answer cards. Students must engage with their peers and apply the content they have studied to put what they have learned to use in other areas of their lives or by drawing links to actual circumstances. The role of the subject in the learning process is to be influenced by the environment; the subject connects stimuli and modifies behavior as a result of those connections (Brau et al., 2022; Escalaw, 2022). Grade 7 will employ the Strategic Intervention Material in Social Science 7 innovation, which also claims that the notion of behaviorist theory was developed or derived from the "stimulus-response." As a result, the study's findings have increased the need for instructors to develop learning resources that enhance teaching and learning for students in the twenty-first century.

Table 3

Comparative Analysis on Posttest Scores between Control and Experimental Groups

Variable	Group	N	Mean	Std. Deviation	Std. Error Mean	t	Df	Sig.	Decision	Interpretation
Posttest Scores:	Experimental	30	28.20	2.188	.399					
	Control	30	21.17	3.018	.551	10.334	58	.000	Reject H0	With Significant Difference

Levene's test > .05 (Equal Variances Assumed)
Experimental Group: With Strategic Intervention Materials
Control Group: With no Strategic Intervention Materials

A between-groups t-test was conducted to compare the posttest scores between the experimental group (with strategic intervention materials) and the control group (with no strategic intervention materials). The results are summarized in Table 5. As shown in Table 5, the mean posttest score for the experimental group was 28.20 (M = 28.20, SD = 2.188), while the mean posttest score for the control group was 21.17 (M = 21.17, SD = 3.018). The standard error of the mean for the experimental group was .399. The t-test revealed a statistically significant difference in posttest scores between the two groups (t(58) = 10.334, p < .001). Thus, the null hypothesis (H0) was rejected, indicating a significant difference in posttest scores between the experimental group with strategic intervention materials and the control group without such materials.

The 13.13-point increase in scores for the experimental group is not only statistically significant but also educationally meaningful. It suggests that the use of Strategic Intervention Materials led to a substantial enhancement in students' understanding and performance. This is particularly significant if the study's learning objectives aimed for such an improvement in knowledge or skills.



The success of the Strategic Intervention Materials in improving scores underscores the importance of differentiated instruction. Tailoring teaching materials and strategies to address students' specific needs and learning styles can yield significant gains. This finding encourages educators to explore personalized approaches to enhance student learning.

While this study demonstrates immediate posttest gains, it would be valuable to assess the long-term impact of the Strategic Intervention Materials. Does the knowledge acquired through these materials persist over time, or is there a need for ongoing reinforcement. Longitudinal studies can provide insights into the durability of the observed improvements.

Given the substantial improvement observed in the experimental group, educational institutions and policymakers should consider allocating resources to develop and implement similar strategic intervention materials. These materials may prove to be a cost-effective way to improve student outcomes, especially if they can be used across different courses or subjects. The success of the intervention suggests that educators play a critical role in facilitating student learning. Properly trained teachers who can effectively utilize these materials are essential. Therefore, investing in teacher training programs that incorporate best practices for using such materials could be beneficial.

The findings of this study were corroborated by a wide range of academic studies showing that SIMs in students' learning increased academic achievement (Lazo et al., 2019; Casinillo et al., 2020; Arpilleda, 2021), among many others that are listed in the section of this research manuscript devoted to reviews of related studies.

Multiple factors, according to Casinillo et al. (2020), have an impact on students' learning experiences and detract from their academic achievement. This needs to be determined before generating strategic intervention materials. According to the study, SIMs is an effective instructional technique for raising students' performance in the science areas with which they are least familiar. Therefore, it was advised by Arpilleda (2021) that the school establish training, programs, and activities that would enhance the instructors' capacity to develop strategic intervention materials to fulfill the needs of the students, particularly in terms of acquiring the least-learned capabilities.

According to Aranda et al. (2019), strategic intervention materials or SIM was an effective teaching tool for teaching low-achieving kids science in grade seven. Science teachers should educate or coach their underachievers using the developed strategic intervention material, claim Aranda et al. (2019). Similar to this, science teachers can develop and use strategic intervention materials as part of their in-service training to teach difficult scientific topics to underperforming students. Furthermore, school administrators may provide facilities and equipment to enable teachers not only those in the science discipline to incorporate intervention materials into their classrooms that will improve the teaching and learning there. Finally, it is strongly urged that future studies broaden SIM's use to a variety of academic or learning contexts.

The study identified several challenges faced by the teacher-researcher in creating the SIMSS-7. These included time constraints caused by various administrative and clerical tasks, the extensive time required to orient students on using the material, the need for professional layout design, and the high cost of printing materials due to colorful imprinted texts and images. Based on these findings, it was recommended that SIMSS-7 be enhanced by covering least-mastered topics from the first to fourth quarters, improving its layout with better graphics, scheduling its creation and validation during In-Service Training to reduce teacher workload, and implementing its use in DepED.

The study recommends that students continue using SIMSS-7 to improve their academic performance, and social science teachers are encouraged to adopt and develop the material as an additional instructional tool to support learning. Curriculum experts are urged to collaborate with educators to integrate research and innovations such as SIMSS-7 into teaching strategies, while also organizing seminars and workshops on pedagogical innovations. School administrators are encouraged to lead training sessions on creating and implementing SIMSS-7. Future researchers are advised to explore additional variables or factors that could further clarify the material's effectiveness, as well as investigate other aspects not covered in this study to provide a more comprehensive understanding of its impact.

In conclusion, the results of the pretest and posttest assessments indicated that while the control group showed slight improvement, the experimental group achieved significantly higher scores. The null hypothesis asserting no significant difference in pretest and posttest scores for both groups was rejected, affirming improvements in both, with the experimental group demonstrating a more notable increase. Similarly, the null hypothesis suggesting no significant difference between the posttest mean scores of the two groups was also rejected, underscoring the effectiveness of SIMSS-7 in enhancing academic performance. The challenges encountered in creating the SIMSS-7 highlight the need for better time management, professional design support, and additional resources to address the costs of production. The findings emphasize the importance of enhancing SIMSS-7 to maximize its impact on student performance.

REFERENCES

1. Abuda, B. F. Q. (2019). *Self-Paced Instructional Approach Using Paper-Engineered Strategic Intervention Material in Social Science 7: Mathvengers, War Against Rational Equations in Developing Mathematics Proficiency among Grade 11 Students*. *Ascendens Asia Journal of Multidisciplinary Research Abstracts*, 3(1)



2. Abuda, B. F. Q. (2019). *Self-Paced Instructional Approach Using Paper-Engineered Strategic Intervention Material in Social Science 7: Mathvengers, War Against Rational Equations in Developing Mathematics Proficiency among Grade 11 Students*. *Ascendens Asia Journal of Multidisciplinary Research Abstracts*, 3(1)
3. Akkuş, M. & Çınkır, Ş. (2022). *The problem of student absenteeism, its impact on educational environments, and the evaluation of current policies*. *International Journal of Psychology and Educational Studies*, 9(Special Issue), 978-997. <https://dx.doi.org/10.52380/ijpes.2022.9.4.957>
4. Alova, C. a. R., & Landas, E. C. (2022). *Effect of localized lesson plans to the interest and performance of pupils in mathematics*. *Journal of Mathematics and Science Teacher*, 2(2), em016. <https://doi.org/10.29333/mathsciteacher/12368>
5. Ambayon, C.M. (2020). *Modular-Based Approach and Students' Achievement in Literatur*. *IJELS Journal*
6. Antipolo, A. M. R., & Rogayan, D. V. Jr. (2021). *Filipino prospective teachers' experiences in teaching in K12 science curriculum: A cross-sectional research*. *Jurnal Pendidikan Biologi Indonesia*, 7(1), 1-10. <https://doi.org/10.2022219/jpbi.v7i1.15468>
7. Aranda, Y. A., Diaz, R. A., Sombilon, M. Gicana, C. (2019). *Integrating strategic intervention materials (SIM) in Science to low achieving learners*. *Journal of Science Teachers and Educators* 2019, 2 (1)
8. Aranes, F (2018), *Illustrated Laboratory Procedures in Chemistry: Effects on the Achievement of Surface and Deep Learners*. Unpublished Masters Thesis. De La Salle University, Philippines.
9. Aranes, Fidela Q, Espinosa, Allen A., Salviejo, Edwin I (2017) *Strategic Intervention Material - Based on Learning Approach and Students Performance in Chemistry* p. 119
10. Armstrong-Mensah, E., Ramsey-White, K., Yankey, B., & Self-Brown, S. (2020). *COVID-19 and Distance Learning: Effects on Georgia State University School of Public Health Students*. *Front. Public Health*, 8, 576227. <https://doi.org/10.3389/fpubh.2020.576227>
11. Arpilleda, A. J. (2021). *Strategic intervention material: A tool in enhancing grade nine students' mathematical performance*. *International Journal of Research Studies in Education*, 10(5). <https://doi.org/10.5861/ijrse.2021.5051>
12. Avilla, S.P.(2022). *Strategic Intervention "Project Sigla" And The Performance of Grade 12 Students In Health Optimizing Physical Education*. *INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES IJAMS Volume II, Issue 7 July 2022*, eISSN: 2799-0664
13. Bates, A. W. (2019). *Teaching in a Digital Age*. Vancouver, B.C.: Tony Bates Associates Ltd.
14. Bautista, M.C. & Bautista, B. (2001). *The Social Science in the Philippines Reflections on Trends and Development*. *Philippine Review of Economics*
15. Bhatnagar, R. (2018). "CHALLENGES IN TEACHING AND LEARNING OF SOCIAL SCIENCE -THE DUAL PERSPECTIVE." *PEOPLE: International Journal of Social Sciences*, 4(3), 519-532. <https://doi.org/10.20319/pijss.2018.43.519532>
16. Brau, B., Fox, N., & Robinson, E. (2022). *Behaviorism*. *Education Research*. https://edtechbooks.org/education_research/behaviorismt
17. Bukoye, R. O. (2019). *Utilization of Instruction Materials as Tools for Effective Academic Performance of Students: Implications for Counselling. The 2nd Innovative and Creative Education and Teaching International Conference*. <https://doi.org/10.3390/proceedings2211395>
18. Camacho, M.T. & Macasinag, K.A. (2018) *STRATEGIC INTERVENTION MATERIALS, DIALOGUE JOURNAL AND SELF ASSESSMENT: INTERVENTION AND STRATEGIES FOR ENHANCING WRITING SKILLS* *ResearchGate Net*
19. Casinillo, L. F., Camulte, M. C. G., Raagas, D. L. & Riña, T. S. (2020). *Cultural factors in learning mathematics: the case on achievement level among Badjao students*. *International Journal of Indonesian Education and Teaching*, 4(1), 71-81.
20. Coleman, V (2021). *What is social studies*. Cambridge University Press 2021. *Research Matters*.
21. De Guzman, L.G. (2022). *Development of an Expanded Module in MAPEH 9 Aligned with Strategic Intervention Material*. *INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES Volume II, Issue 7 July 2022*, eISSN: 2799-0664 *IJAMS INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES Volume II, Issue 7 July 2022*, eISSN: 2799-0664 *IJAMS*
22. De Jesus, R.G. (2019), *Improving the Least Mastered Competencies in Science 9 Using "Pump It Up!" Electronic Strategic Intervention Material*. *DLSU Research Congress*
23. Dhawan, S. (2020). *Online Learning: A Panacea in the Time of COVID-19 Crisis*. *Journal of Educational Technology Systems*, 49(1), 5-22. <https://doi.org/10.1177/0047239520934018>
24. Dizon, N.H., de Guzman, M.F.D., Uy, L.F. & Ganaden, A.R. (2021) "Education Concerns in Public Secondary Schools of Division of Zambales, Philippines: An Education Response to COVID 19 Pandemic of 2020", *EAS Journal of Humanities and Cultural Studies-Volume-3 | Issue-2 |*
25. England, B. J., Brigati, J. R., Schussler, E. E., & Chen, M. M. (2019). *Student anxiety and perception of difficulty impact performance and persistence in introductory biology courses*. *CBE- Life Sciences Education*, 18(2), ar21. <https://doi.org/10.1187/cbe.17-12-0284>
26. Escalaw, M.A. (2023). *Teacher's Guide: How to Conduct Classroom Action Research*. ISBN 978-621-06-1150-2. 15.9.
27. Escalaw, et al., (2022). *The Effects of an Integrated STEM Education Approach for Online Learners in Grade 10 Mathematics: A Research Study* *SouthEast Asian Ministers of Education Organization Science, Technology Engineering, and Mathematics Education (SEAMEO-STEM ED) Journal*
28. Escalaw, M.A. (2021). *Collaborative Reflective Activity Using Collaborative Apps For New Normal Education*. *DepEd KITE JOURNAL*. 11.
29. Escalaw, M.A. (2021). *Crafting and Utilization of E-Learning Hub*. (Abstract). *Philippine Association of Institutional Research*.
30. Escalaw, M.A., Gallego, E.I., De Guzman, G.B., & (2023). *A Transformative Chronicle of Digitalization of Learning Resource in the New Normal: A Multiphase Research Design*. 7th SDO Calamba Research Conference.



31. Escalaw, Mariefe A. (2022). Online Teacher Computer Self-efficacy and Competency. *Technology, Pedagogy, Research and Innovation in Education* (ISBN-13 979-8849675107)
32. Escalaw, M. A. (2022). ONLINE TEACHER COMPUTER SELF-EFFICACY AND PERFORMANCE IN THE NEW NORMAL. *EPRA International Journal of Multidisciplinary Research*, 58–65. <https://doi.org/10.36713/epra10945>
33. Escalaw, M.A., & Ambat, Edd Jefferson Charles, T. (2022). *The Southeast Asian Journal of STEM Education (SAJSE)*. Volume 3 No.2 <https://seameo-stemed.org/research-publication/journal/>
34. Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online Learning and Emergency Remote Teaching: Opportunities and Challenges in Emergency Situations. *Societies*, 10, 86. <https://doi.org/10.3390/soc10040086>
35. Fiori, M., Agnoli, S., & Davis, S. K. (2023b). Editorial: New trends in emotional intelligence: conceptualization, understanding, and assessment. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1266076>
36. Garcia, M. T. T. (2022). Strategic Intervention Material to Improve the Performance of the College Freshmen Students. *Journal of Learning and Educational Policy*, 23, 8–17. <https://doi.org/10.55529/jlep.23.8.17>
37. Govindaraju, R. & Venkatesan, S. (2017). A study on school drop-outs in rural settings. *Journal of Psychology*, 1(1), 47–53.
38. Greenhow, C., Lewin, C., & Staudt Willet, K. B. (2020). The educational response to Covid-19 across two countries: A critical examination of initial digital pedagogy adoption. *Technology, Pedagogy and Education*, 30(1), 5–23. <https://doi.org/10.1080/1475939X.2020.1866654>
39. Handley, M. A., Lyles, C. R., McCulloch, C. E., & Cattamanchi, A. (2018). Selecting and improving Quasi-Experimental Designs in Effectiveness and Implementation research. *Annual Review of Public Health*, 39(1), 5–25. <https://doi.org/10.1146/annurev-publhealth-040617-014128>
40. Hollnsteiner, M. [1973] "The state of the social sciences" *PSSC Social Science Information*, Vol. 1(1).
41. Kraft, M. A., & Simon, N. S. (2020). *Teachers' Experiences Working from Home During the COVID-19 Pandemic*. New York: Upbeat.
42. Limbago-Bastida, R.A., Bastida, G.L. (2018). EFFECTIVENESS OF STRATEGIC INTERVENTION MATERIAL ON THE LEARNING OUTCOMES OF STUDENTS \ *European Journal of Social Sciences*. Vol 7, No 4 (2022)
43. Mariano, M. S., Escalaw, M., & Gallego, E. (2023). Teachers' Innovation on Reflective and Integrative (RAI) Video Lessons in Enhancing the Academic Performance of Grade 2 Learners in Araling Panlipunan. *JPAIR Institutional Research*, 20(1), 108–124.
44. Mulenga, I. M., & Kabombwe, Y. M. (2019). Understanding a competency-based curriculum and education: The Zambian perspective.
45. O' Neill, T. A., Pezer, L., Solis, L., Larson, N., Maynard, N., Dolphin, G. R., ... & Li, S. (2020). Team dynamics feedback for post-secondary student learning teams: introducing the "Bare CARE" assessment and report. *Assessment & Evaluation in Higher Education*, 45(8), 1121–1135.
46. Rosal, G., Aguinaldo, J. C., Reyes, L. D., Casuat, G. H., Balagtas, R., & Del Mundo, E. (2022). Improving the Least Mastered Competencies of Grade 11 Students in General Chemistry using Electronic Strategic Intervention Material (E-SIM). *Kimika*, 33(2), 59–76. <https://doi.org/10.26534/kimika.v33i2.59-76>
47. Passion, R.B. (2019). *The Efficacy of Strategic Intervention Materials (SIMS) in Teaching Social Studies Among Third Year High School Students*. SMCC Higher Education Research Journal ISSN Print: 2449-4402 · ISSN Online: 2467-6322 Volume 6 · January 2019
48. Sadsad, M.P. (2022). Utilizing The Competency-Based Strategic Intervention Materials As Tool To Assess Performance Of Students In Grade 9 Physical Education. *INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES IJAMS* Volume II, Issue 7 July 2022, eISSN: 2799-0664
49. Sarbah, B. K. (2020). CONSTRUCTIVISM LEARNING APPROACHES. 10.13140/RG.2.2.28138.34241.
50. Siegle, D. (2018). Understanding Underachievement. *Handbook of Giftedness in Children*, 285–297. https://doi.org/10.1007/978-3-319-77004-8_16
51. Sinco, M.G. (2018). *Strategic Intervention Materials: A Tool in Improving Students' Academic Performance* DOI: 10.13140/RG.2.2.13569.79204
52. Sinco, M. G. M. (2020). *Strategic Intervention Materials: a tool in improving students' academic performance*. Zenodo (CERN European Organization for Nuclear Research). <https://doi.org/10.5281/zenodo.3870630>
53. Starkey, L., Shonfeld, M., Prestridge, S., & Cervera, M.G. (2021). Special issue: Covid-19 and the role of technology and pedagogy on school education during a pandemic. *Technology, Pedagogy and Education*, 30(1), 1–5, <https://doi.org/10.1080/1475939X.2021.1866838>
54. Suarez, M. G. & Casinillo, M. G. (2020). EFFECT OF STRATEGIC INTERVENTION MATERIAL IN SOCIAL SCIENCE 7 ON ACADEMIC PERFORMANCE: EVIDENCE FROM STUDENTS OF SCIENCE VI *Review of Socio-Economic Research and Development Studies* 2020 Volume 4 No. 1, 20–32
55. Traxler, J. (2018). Distance Learning – Predictions and Possibilities. *Education Sciences*, 8, 35. <https://doi.org/10.3390/educsci8010035>
56. Tomaszewski, W., Xiang, N., Huang, Y., Western, M., McCourt, B., & McCarthy, I. P. (2022). The Impact of Effective Teaching Practices on Academic Achievement When Mediated by Student Engagement: Evidence from Australian High Schools. *Education Sciences*, 12(5), 358. <https://doi.org/10.3390/educsci12050358>
57. Tomlinson, A., Simpson, A., & Killingback, C. (2023). Student expectations of teaching and learning when starting university: a systematic review. *Journal of Further and Higher Education*, 47(8), 1054–1073. <https://doi.org/10.1080/0309877x.2023.2212242>
58. Ugwuanyi, K. O. (2023). Acceptability Judgement Tasks in New Englishes research. In *Varieties of English around the world*. General series (pp. 158–177). <https://doi.org/10.1075/veaw.g68.08ugw>
59. underachiever. (2022). In *The Merriam-Webster.com Dictionary*. <https://www.merriam-webster.com/dictionary/underachiever>