



INTERACTIVE WORKBOOK ENRICHMENT EXERCISES (IWEE): BRIDGE TO ENHANCE LEARNERS' ACHIEVEMENT IN ENGLISH 4

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CERTIFICATE OF ORIGINALITY

We/I hereby attest to the originality of this research paper and have cited properly all the references used. I further commit that the final research study emanating from the approved proposal shall be original content. We/I also declare that the intellectual content of this BERF study is a product of our/my work.

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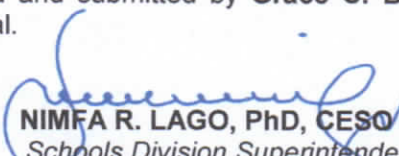
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APPROVAL SHEET

In fulfillment of the requirements for the Basic Education Research Fund, this study entitled, "**Interactive Workbook Enrichment Exercises (IWEE): Bridge to Enhance Learners' Achievement in English 4**" prepared and submitted by **Grace C. Badong** is hereby recommended for acceptance and approval.


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Interactive Workbook Enrichment Exercises (IWEE): Bridge to Enhance Learners' Achievement in English 4

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ABSTRACT

Electronic books are among the twenty-first century's most popular tools for enhancing learning. The action research on Interactive Workbook Enrichment Exercises (IWEE): Bridge to Enhance Learners' Achievement in English 4 was created in response to teachers' need to explore innovations that can supplement the learning of Grade 4 students. For this project, the 10 Grade 4 English students who received first-quarter marks of 79% or lower had to install the E-Book program on their laptops and smartphones. Purposive sampling was employed to choose the participants for the study based on their first-quarter grades. The study's findings showed that Grade 12 students' quarterly grades climbed from 77 in the first quarter to 85 in the third quarter, indicating a significant performance improvement. It is concluded that the teacher's effort to help students learn through the E-Book helped improve performance. The researcher recommends that the be continued further to improve learners' performance in the school. The study recommends retooling teachers on using E-Book to supplement the learning modules.

Keywords: *grades, performance, quarterly, supplement, e-book*

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I. Context and Rationale

During the pandemic, many children and adolescents exhibited disengagement, persistent attendance issues, reductions in academic performance, and decreased credit attainment; the effects were far more severe for those already at risk. With the start of the in-person classes in the different schools of the country, the low academic achievement of learners posed a problem to teachers and other educators.

In Labo Central School, learners' low academic achievement is seen in English in the first quarter of School Year 2022-2023. It is especially true among Grade Four learners whose academic achievement in the first quarter is below 80% proficiency level. The students are supposed to have already developed the correct thoughts and grammar expected of Key Stage 2 learners. At this stage of education, fourth graders can now control

the proper use of pronouns, adjectives, adverbs, and other parts of speech. They can already produce simple, compound, and complex sentences. Demonstrating command of standard English capitalization, punctuation, and spelling conventions when writing. In Labo Central School, there were ten (10) grade four learners during the first quarter examination with grades 80 and below, which calls for an intervention by the English teacher. Thus, the teacher-researcher thought of introducing an electronic workbook in the second semester to help learners develop the language skills achievement of 21st-century learners.

The importance of English is being steadily emphasized around the world because of the growth of the global economy. A great future is guaranteed by good English, according to the maxim that parents and instructors constantly try to instill in their young charges. Even a school's credibility and enrolment are based on its English curriculum. The government and schools are pressured to guarantee effective instructional practices for English language learners and their academic development because the number of English language learners is increasing yearly (Háhn, 2018; Hussein et al., 2021).

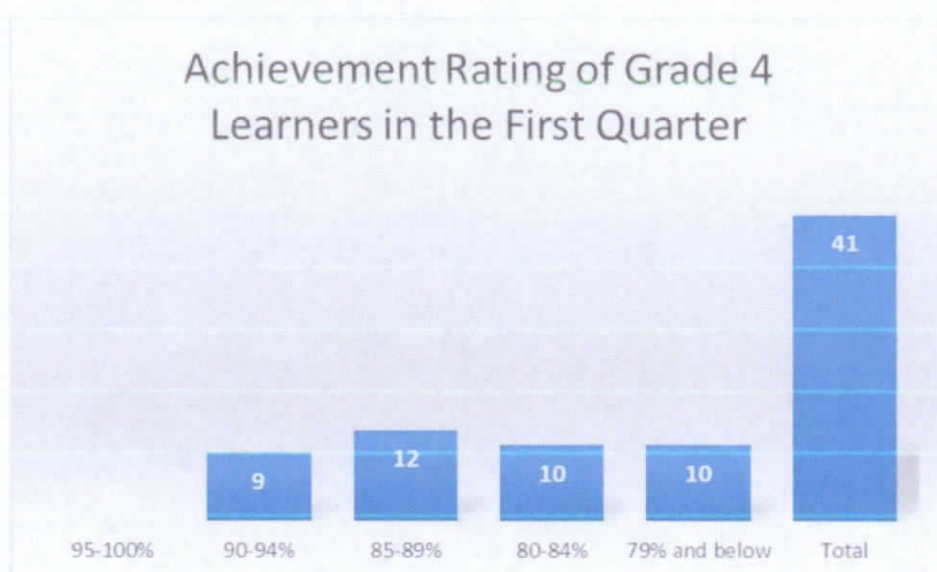
Students are given paperback textbooks containing activities called workbooks. Workbooks typically contain practice questions with blank spaces for the students to write their responses. Electronic workbooks have made interactive and individualized learning possible more recently. They discovered that not only were workbooks useful tools in the learning process, but they also promoted learning in students and were perceived by many students as the most significant in their education. Employing workbooks has been proven effective in reinforcing concepts and theories learned (Farah et al., 2021; Ismi et al., 2018).

Student workbooks are educational tools that include elements that encourage learning and ensure that students have the knowledge and skills necessary to achieve the learning objectives outlined in lesson plans. Students have varying needs and learning preferences. Along with subject matter, students can develop attention, concentration, and handwriting abilities. Workbooks are easily accessible at nearby bookstores or online and are effective with children of all ages. These are useful tools in our continuous campaigns to

get pupils to think during class. Students learning outside of class might be guided by worksheets utilized in classroom settings (Maruyama et al., 2021; Lyytikäinen, 2018).

An eBook is a book that has been converted into a digital format that is non-editable and reflowable so that it may be viewed on any digital device, including computer displays and mobile devices. It is lightweight and transportable, making it simple to use. One eBook reader may store thousands of eBooks, eliminating the need to carry many heavy books. It frees up much room, both in the house and purse. There is no need to be concerned about the storage cap. Students prefer to use electronic books when viewing videos, reading, messaging, and conversing with others. It is simple to incorporate digital devices into their instructional environment. Many students prefer study materials that are simple to access and portable (Yorke et al., 2020; Hu, 2021).

It is a significant challenge for an English teacher in charge of Labo Central School's grade 4 students to ensure that every student achieves a proficiency level of 80% or higher and that every student can stay caught up. Finding an intervention that can boost performance while also making learning fun for students is therefore necessary.



Even though only 10 of the 41 students enrolled in Grade 4 are performing satisfactorily, this will undoubtedly impact students' ability to learn in the upcoming quarter. Because the curriculum is spiral, if students have trouble learning in the first quarter, they will likely have even more trouble in the upcoming grading periods. The achievement rating of

students poses a significant difficulty to the researcher in terms of developing an intervention that will address this issue, notwithstanding the adjustment brought on by the pandemic's break. As a result, a worksheet-based learning technique is created for the second quarter to enhance the learners' first-quarter difficulty.

II. Innovation, Intervention and Strategies

Student electronic workbooks are educational tools that include elements that encourage learning and ensure that students have the knowledge and skills necessary to achieve the learning objectives outlined in lesson plans. Students have varying needs and learning preferences. The printed page does not limit eBooks because they are digital. They can combine video elements, tests with immediate scoring, and homework response questions in a single location. A more engaging, effective learning environment is created by incorporating interactive elements. Additionally, it works well for a more adaptable learning environment (Sneddon, 2020; Taele et al., 2020).

The suggested eBook is a project that intends to assist the ten students in Grade 4 English who are performing at a level that is below adequate during the second semester of SY 2022–2023. The teacher-researcher will provide detailed instructions on installing the e-workbook program on the student's electronic devices, including laptops, tablets, and smartphones. The teacher-proponent will call each participant when there is a free moment to do a follow-up or to carry out in-person remediation utilizing the interactive E-book. Depending on the agreed-upon schedule, the teacher-proponent will follow up with the student's reactions to the various tasks.

The primary advantage of eBooks in the classroom is that they can raise student engagement. Additionally, it gives students several tools to use while they work through challenging ideas. Additionally, digital training enables the presentation of complex and frequently confusing subjects. The eBook will aid students in enhancing and advancing their learning abilities throughout the academic year and act as an alternative instructional design that uses prepared instructional materials tailored to the requirements of the students.

Students are encouraged to participate in and respond to various interactive activities that are appropriate for their level, which promotes independent study (Lucantoni et al., 2022; Fauzi et al., 2020; Sufianita, 2019; Lada, 2020).

Using eBooks has several benefits. The most crucial benefit is enabling more accurate evaluation, targeted correction, and development. Interactive workbooks are made to give instructors all the required knowledge to run an activity smoothly. eBooks can be used by teachers as a tool for assessment to learn about students' prior knowledge, learning outcomes, and learning processes, as well as to give students the ability to track their learning progress (Nainggolan et al., 2020; Bilad et al., 2021; Kavilova, 2019; V Butova et al., 2019).

Students still frequently struggle to master English-language abilities. According to the researcher, an engaging and effective eBook can lessen learning challenges. These digital workbooks are engaging resources to study individually by learning participants. Learning remediation is done through in-person follow-up during the instructor and student's free time. A full and replicated study on using interactive workbooks to ensure continuing education in the context of the new normal has not yet been conducted. The electronic workbook implementation strategy is laid forth in Table 1.

Table 1. The Project Worksheet Implementation Flow

| Activities | Target Group | Person/s Responsible | Timeline |
|--|----------------------|--------------------------------------|-----------------------|
| Baseline Data (Quarter 1 Achievement Rating) | Learners | Proponent Learners | September 2022 |
| One on One Orientation with Learners | Learners and Parents | Proponent Learners | September 2022 |
| Requesting permission to implement innovation | School Principal | Proponent School Head | October 2022 |
| Implementation of Project Worksheet | | | |
| <ul style="list-style-type: none"> • Distribution of eBook application • Schedule of follow-up with Learners | Learners | Proponent School Head Learners | October-February 2023 |
| Monitoring the Learning Skill Development of Learners | Parents Learners | Proponent School Head | October-February 2022 |
| Baseline Data (Second Quarter Achievement) | Learners | Proponent | February 2023 |

| Activities | Target Group | Person/s Responsible | Timeline |
|------------|--------------|----------------------|----------|
| Grade) | | | |

II. Action Research Questions

This action research aims to meet the educational needs of the ten participants enrolled in Labo Central School's English 4 class. The study will address the following research questions:

1. What is the English proficiency level of Grade 4 pupils before and after the e-book or IWEE?
2. What other improvements are evident as effects of using E-book or IWEE?
3. What are the challenges encountered in the use of E-book or IWEE?

IV. Action Research Methods

Research Design. By design, the study is action research. Action research design is a method of conducting educational research that involves gathering data on present educational practices and results, interpreting the data, creating a plan to improve it, monitoring changes after the new plan is implemented, and drawing conclusions about the improvements. Action research builds information based on investigations carried out and frequently practical contexts. As previously said, action research aims to learn via doing to further one's career (Clark et al., 2020).

Site. The Labo Central School, located in Labo, Ozamiz City, will be the action research site. It is a complete elementary school that serves students in Key Stages 1 and 2. There are 15 teachers in the school and two school heads.

Participants. The ten Grade 4 students who have earned less than satisfactory grades in English for that grade participate in this intervention. The learners are picked purposefully based on their achievement results when choosing the participants.

Data Gathering Methods. Establishing baseline data and post data is important to determine whether there is improvement in the achievement level of learners after the implementation of the eBook; data will be gathered through a standardized assessment tool

in this project, which is the achievement rating of learners embodied in the SF 9 for Second Quarter (Appendix A). Semi-structured interviews will be performed to understand more about how the project improves the participants' learning performance in order with the learners utilizing the Interview Guide Questions (Appendix B).

Ethical Considerations. The participants will be made aware of the nature of their participation in the study before it is conducted, and they will be asked to sign an informed consent. All information will be treated in confidence. The paper will in no way reveal the identities of the participants. Participants will be asked to sign an informed consent form (Appendix C) to secure their free and informed consent.

Plan for Data Analysis. Counts, percentages, means, and standard deviations are just a few examples of descriptive statistics that will be used to organize and analyze the quantitative data collected for this project. Thematic analysis will be used to examine the information from the performed interview.

V. Discussion of Results and Reflections

Following the Interactive Workbook Enrichment Exercises (IWEE) to Improve Performance in English for Grade Four, an analysis of the second and third-quarter grades of learners in comparison with the first-quarter grades produced a very positive result, as evidenced by the increasing grades of the 10 Grade 4 students of Labo Central School.

Performance of the Grade 4 learners in English 4 before the Worksheet

Figure 1 shows a low rating for Grade 4 learners which will surely affect the ability of learners to learn in the next quarter since the curriculum is spiral and if they found it difficult to learn in quarter one and more so in the next quarter.

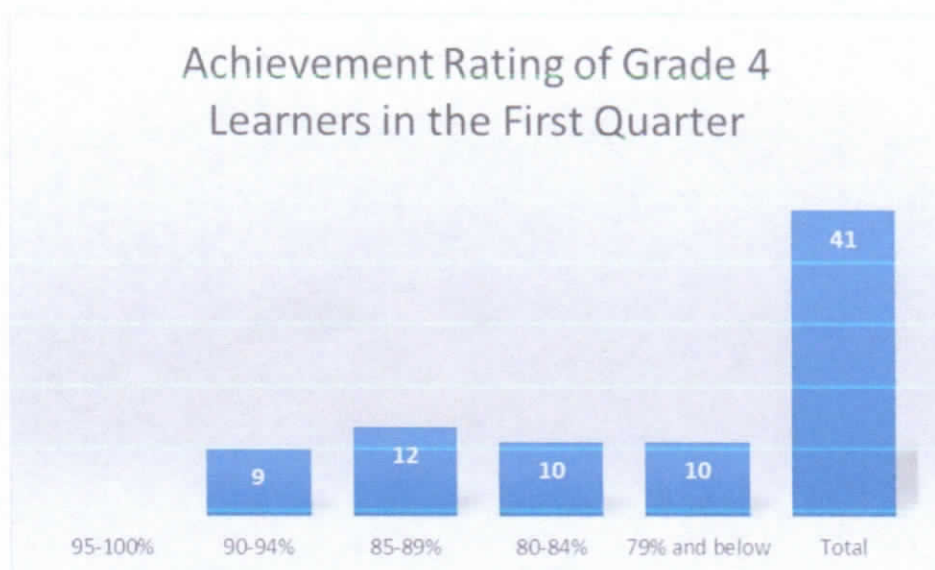


Figure 1. Performance of the Grade 4 learners in English before the E-Book

Performance of the Grade 4 learners in English after the Worksheet

Table 2 showed that the results of the quarterly grades of Grade 4 learners had increased from 77(First Quarter) to 85(Third Quarter), manifesting a high increase in performance of the participants of English 4 learners.

Table 2. Performance of the Grade 4 learners in English 4 before and after the Worksheet

| Learner | First Quarter | Second Quarter | Third Quarter | Interpretation |
|-----------------|---------------|----------------|---------------|----------------|
| 1 | 79 | 83 | 85 | Increasing |
| 2 | 78 | 82 | 85 | Increasing |
| 3 | 78 | 84 | 84 | Increasing |
| 4 | 76 | 84 | 84 | Increasing |
| 5 | 75 | 83 | 85 | Increasing |
| 6 | 75 | 83 | 85 | Increasing |
| 7 | 78 | 83 | 85 | Increasing |
| 8 | 79 | 81 | 84 | Increasing |
| 9 | 76 | 82 | 84 | Increasing |
| 10 | 77 | 81 | 84 | Increasing |
| General Average | 77 | 83 | 85 | Increasing |

Improvement Highlights of the Writing Performance

The Interactive Workbook Enrichment Exercises (IWEE) for English 4 assisted students in raising their grades, where most of the English skills are concentrated. The E-Book helped learners hone their reading and other English skills within the school year. The

E-book served as a different instructional strategy that uses created educational materials tailored to the needs of the learners.

Effectiveness of the E-Book. The parents' interview yielded encouraging results on using E-Books to advance students' English proficiency because the assignments were simple for students to complete and allowed them to work independently and at their own pace. Simple instructions on how to complete the various exercises were provided to the learners as guides. While being interviewed, the parents said:

"The activities are enjoyable for learners" (P1).

"The instructions are manageable to understand" (P3).

"The activities are easy to answer" (P9).

Communication requires proficiency in English. It gives us the ability to communicate and think critically. It conveys who we are as individuals. It strengthens our capacity to communicate and clarify our thoughts to others by making our thinking and learning visible and lasting. Regular English exercises help pupils strengthen their creativity, inventiveness, and intellectual faculties (Lopach et al., 2018).

Challenges in the Use of the E-Book. Using an E-Book presented difficulties since the students had to complete the tasks with little teacher supervision. The difficulties were, however, made simpler to overcome by the teacher and students' face-to-face connection. As stated by the parents:

"My son had to rely on his capabilities to study some topics, but the teacher helped through home visitation" (P2).

"The teacher called me regularly to follow up on my son's performance" (P7).

"My daughter found it difficult at first, but she was able to manage" (P9).

The E-Book is an alternative instructional design that uses instructional materials that have been created depending on the needs of the learners. Learners are encouraged to complete and respond to various writing assignments that are appropriate for their level (Mahtari et al., 2020).

The electronic book activities are made to be studied independently by learners utilizing smartphones, tablets, or laptops. English language remediation is done in person and through home visits (Masitoh & Prasetyawan, 2019; Yanti, 2019).

Reflection

Teachers at Labo Central School know the significance of an innovation that supports enhancing student performance, particularly for Grade 4 students moving on to higher levels of curriculum study. Better overall results in the educational setting can result from innovative teaching practices. Learners who are enhancing their peer involvement and gaining stronger communication skills are a common sight in innovative classrooms. Teachers faced difficulty supporting the students in their class who performed below grade level as a teacher in the new normal landscape, thus this innovation. Mentors understood that innovations must always be explicitly linked to the learning objective and task for mastering a learning standard to gauge the improvement in learners' performance.

The result of this research helped educators make sense of their learners' performance; they learned new ways of thinking and acting to help them improve themselves.

VI. Action Plan

A group of teachers, school administrators, and district supervisors will hear the research results after the study has been examined and the approving authority has approved the final report. The researcher will also test presentations at research conferences and publish the report. The researcher will also provide recommendations for potential policy formation based on the study's findings to other district schools, the district supervisor, and the superintendent of the school's division in the Division of Ozamiz City.

VII. References

- ALGHAMDI, JAWAHER. "THE EFFECT OF THE INTEGRATION OF ONLINE GAMIFIED MATHEMATICS PRACTICE ACTIVITIES ON LEARNERS' ENGAGEMENT, MOTIVATION AND ACADEMIC ACHIEVEMENT." *International Interdisciplinary Journal of Education* 9, no. 3 (2020). http://ijoe.org/v9/IJOE_14_03_09_2020.pdf
- Bilad, Muhammad Roil, and Saiful Prayogi. "Portfolio workbook as an effective method for student-centered learning of chemical engineering principles." *ASEAN Journal of Science and Engineering Education* 1, no. 1 (2021): 31-36. <https://ejournal.upi.edu/index.php/AJSEE/article/view/32404>
- Chirco, K. (2018). Impact of computer-based instruction on academic achievement. <http://csusm-dspace.calstate.edu/handle/10211.3/204031>
- Clark, J. S., Porath, S., Thiele, J., & Jobe, M. (2020). *Action research*. New Prairie Press. <https://newprairiepress.org/ebooks/34/>
- Coskun, Ismail, and Cevat Eker. "The Effect of Teaching Activities Done by Using Activity Based Posters on the Students' Academic Achievements, Retention Levels in Their Learning." *Universal Journal of Educational Research* 6, no. 4 (2018): 585-597. <https://eric.ed.gov/?id=EJ1175426>
- Farah, Rafika Rabba, Alimin Adi Waloyo, and Puji Sumarsono. "Incorporating English and Islamic Knowledge into Workbook Development for Primary School Students." *IJOTL-TL* 6, no. 2 (2021): 189-202. <https://eprints.umm.ac.id/82334/>
- Fauzi, Andi Rizki, and Suradi Suradi. "DESIGNING AN ENGLISH VOCABULARY WORKBOOK FOR HOSPITALITY STUDENTS BASED ON CORPUS-BASED APPROACH." *ANGLO-SAXON: Journal of the English Language Education Study Program* 11, no. 2 (2020): 152-169. <https://journal.unrika.ac.id/index.php/jurnalanglo-saxon/article/view/2800>
- Háhn, Judit. "An immigrant mother's thoughts on using Finnish in English workbooks." *Kieli, koulutus ja yhteiskunta* 9, no. 1 (2018). <https://jyx.jyu.fi/handle/123456789/57507>
- Hu, Yu. "Research on Task-Based Workbook for Developing English Language Speaking Skills of First Year College EFL Students." *Open Journal of Social Sciences* 9, no. 5 (2021): 339-346. <https://www.scirp.org/journal/paperinformation.aspx?paperid=109133>
- Hussein Al Noursi, Omar. "The impact of blended learning on the twelfth grade students' English language proficiency." *Arab World English Journal (AWEJ)* Volume 11 (2021). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3764896
- Ismi Wakhidah, Nur Jannah, and Endang Fauziati. "A Study of Ambiguity Found In Students' English Workbook of Vocational High School." PhD diss., Universitas Muhammadiyah Surakarta, 2018. <http://eprints.ums.ac.id/id/eprint/61351>
- Kavilova, Tamara. "Simplification of translation competence using automated translation means and electronic applications." *Scienceweb academic papers collection* (2019). <https://scienceweb.uz/publication/961>
- Lada, A. S. "Electronic Work Record in the Digital Economy: Realities and Prospects." In *2nd International Scientific and Practical Conference "Modern Management Trends and the Digital Economy: from Regional Development to Global Economic Growth"* (MTDE 2020), pp. 923-927. Atlantis Press, 2020. <https://www.atlantispress.com/proceedings/mtde-20/125939806>
- Lopach, L., Jenson, W., Davis, J., Knorr, J., & O'Neill, R. (2018). The electronic home note program: an effective intervention package to improve parent program participation,

on-task behavior, and academic performance. *Contemporary School Psychology*, 22(4), 488-502. <https://link.springer.com/article/10.1007/s40688-018-0197-7>

- Lucantoni, Peter, and Lydia Kellas. *Cambridge IGCSE (TM) English as a Second Language Workbook with Digital Access (2 Years)*. Cambridge University Press, 2022. <https://books.google.com/books?hl=en&lr=&id=1rZpEAAAQBAJ&oi=fnd&pg=PA1&dq=students+english+workbook&ots=Q6W0bYKLAI&sig=4BSqjtqZ1yr- uiTFJfxNeiVDoeg>
- Lyytikäinen, Lasse. "An analysis of communicative exercises of two English workbooks from the Finnish middle school." (2018). <https://jyx.jyu.fi/handle/123456789/57883>
- Maruyama, Takao, and Takashi Kurosaki. "Do remedial activities using math workbooks improve student learning? Empirical evidence from scaled-up interventions in Niger." *World Development* 148 (2021): 105659. <https://www.sciencedirect.com/science/article/pii/S0305750X21002746>
- Masitoh, L. F., & Prasetyawan, E. (2019). The effectiveness of scientific approach with open-ended problem based learning worksheet viewed from learning achievement, creative thinking ability, interest, and mathematics self-efficacy. *Daya Matematis: Jurnal Inovasi Pendidikan Matematika*, 7(3), 292-308. <https://iopscience.iop.org/article/10.1088/1742-6596/1175/1/012136/meta>
- Mahtari, S., Wati, M., Hartini, S., Misbah, M., & Dewantara, D. (2020). The effectiveness of the student worksheet with PhET simulation used scaffolding question prompt. In *Journal of Physics: Conference Series* (Vol. 1422, No. 1, p. 012010). IOP Publishing. <https://iopscience.iop.org/article/10.1088/1742-6596/1422/1/012010/meta>
- Nainggolan, Bajoka, Wesly Hutabarat, Manihar Situmorang, and Marham Sitorus. "Developing Innovative Chemistry Laboratory Workbook Integrated with Project-Based Learning and Character-Based Chemistry." *International Journal of Instruction* 13, no. 3 (2020): 895-908. <https://eric.ed.gov/?id=EJ1259673>
- Romadhona, Hidayatur Rahman. "Developing Electronic Student English Workbook for Senior High School in Indonesia." *Language-Edu* 9, no. 1 (2020). <https://core.ac.uk/download/pdf/287229400.pdf>
- Skern, Timothy. *Writing scientific English: A workbook*. utb GmbH, 2019. <https://books.google.com/books?hl=en&lr=&id=pie7DwAAQBAJ&oi=fnd&pg=PP1&dq=students+english+workbook&ots=XMgP30ZhZN&sig=QHvQ5k6zKAjFCFD2UzN9oWJaQrs>
- Sneddon, James Neil. *Understanding Indonesian Grammar: A student's reference and workbook*. Routledge, 2020. https://books.google.com/books?hl=en&lr=&id=rfz0DwAAQBAJ&oi=fnd&pg=PP1&dq=students+english+workbook&ots=t_ecg_0xmz&sig=zuJW_qlOOq9-LfXzWB2yXFUKSe8
- Sufianita, Dilla. "DEVELOPING AN ENGLISH LISTENING WORKBOOK FOR MULTIMEDIA DEPARTMENT OF VOCATIONAL HIGH SCHOOL." *ISLLAC: Journal of Intensive Studies on Language, Literature, Art, and Culture* 3, no. 2 (2019): 146-155. <http://journal2.um.ac.id/index.php/jisllac/article/view/10221>
- Taele, Paul, Jung In Koh, and Tracy Hammond. "Kanji workbook: a writing-based intelligent tutoring system for learning proper japanese kanji writing technique with instructor-emulated assessment." In *Proceedings of the AAAI Conference on Artificial Intelligence*, vol. 34, no. 08, pp. 13382-13389. 2020. <https://ojs.aaai.org/index.php/AAAI/article/view/7053>

- Utami, Alvi Raihan, Dyah Aminatun, and Nina Fatriana. "STUDENT WORKBOOK USE: DOES IT STILL MATTER TO THE EFFECTIVENESS OF STUDENTS' LEARNING?." *Journal of English Language Teaching and Learning* 1, no. 1 (2020): 7-12. <http://jim.teknokrat.ac.id/index.php/english-language-teaching/article/view/247>
- Üzüm, Burhan, and Ata Pesen. "Do the Learner-Centered Approaches Increase Academic Performance? Effect of the Layered Curriculum on Students' Academic Achievement in English Lesson." *International Journal of Instruction* 12, no. 1 (2019): 1585-1608. <https://eric.ed.gov/?id=EJ1201246>
- V Butova, Anna, Angelina I Dubskikh, Olesya V. Kisel, and Elena G Chigintseva. "Electronic educational environment Moodle in English language training." *Arab World English Journal (AWEJ)* Volume 10 (2019). https://papers.ssm.com/sol3/papers.cfm?abstract_id=3367503
- Vocetková, Klára, and Marek Šulista. "Differences in electronic and printed versions of a university mathematics workbook." https://www.researchgate.net/profile/Klara-Vocetkova-2/publication/355559299_Differences_in_the_use_of_electronic_and_printed_versions_of_a_university_mathematics_workbook/links/618986de61f098772070858e/Differences-in-the-use-of-electronic-and-printed-versions-of-a-university-mathematics-workbook.pdf
- Yanti, H., Distrik, I. W., & Rosidin, U. (2019). The effectiveness of students' worksheets based on multi-representation improves students' metacognition skills in static electricity. In *Journal of Physics: Conference Series* (Vol. 1155, No. 1, p. 012083). IOP Publishing. <https://iopscience.iop.org/article/10.1088/1742-6596/1155/1/012083/meta>
- Yorke, April M., Emily Sternad, Carley Shermak, and Alyssa Mahler. *Phonetics Workbook for Students of Communication Sciences and Disorders*. MSL Academic Endeavors, 2020. https://engagedscholarship.csuohio.edu/msl_ae_ebooks/19/