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GOOGLE FORMS: ENRICHING ECONOMIC LEARNING THROUGH ACTION RESEARCH

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Abstract: *In the contemporary civilization characterized by advanced technology, Google Forms has emerged as a prominent instructional tool widely utilized in educational institutions of the 21st century. This study aimed to enhance students' understanding and memorization competencies to answer the objective questions on paper 1 of the SPM Economics course. Fifth graders from Delima at SMK Raja Jumaat in Port Dickson participated in the research. Monthly school exams and assessments serve as the basis for the first survey. The poll indicated that students spend a lot of time thinking about and answering economic questions incorrectly. The eight weeks of this training are devoted to action planning, with a particular emphasis on an efficient Google Form quiz technique. Its execution involves teaching students all of the subject's chapters systematically, followed by testing them using Google Forms with economic fact quiz questions, actual SPM economics questions (from 2018 to 2022), and SPM Economics Trial questions (2022 to 2023). In this exercise, students will practice for an economic fact quiz until they reach a predetermined goal. Students exhibit enhanced memorization skills in*

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understanding economic topics and display mastery in swiftly and accurately answering objective questions about economics on the post-exam. Google Forms overcomes the economic information comprehension and memory difficulty and improves student performance regularly. It also promotes environmental sustainability by removing paper and preserving resources.

Keywords: *Google form, economics, quiz, memorization, student performance*

Introduction

Google Forms is a Google application that lets you create customisable online surveys with question and answer sections. The program's users will be able to acquire feedback straight from the people who participated in the survey. Google Form is a free tool that you may use for a variety of purposes, like making surveys, online registration forms, and fast count opinions.

Curiously, all Gmail account holders are free to use this Google Forms tool. In short, Google Forms is an online survey tool that lets you collect data from people according to your specifications. For instance, in cases where you require details about the respondent's private information. Using the most up-to-date technology, you can construct forms using Google Forms and distribute them far and wide. Users can simply input the required data and submit it to you through mobile devices.

You may enhance your data management and user engagement abilities by utilising the Google Forms tool. Gathering user information is only one of the numerous things you can do with Google Forms. Figure 1 shows some other benefits of Google Form include conducting polls, keeping track of participants, gathering data from surveys and studies, analysing data findings, creating instruments or questionnaires, designing a questionnaire, generating quiz questions, developing assessments and assessment questions, and building quizzes.

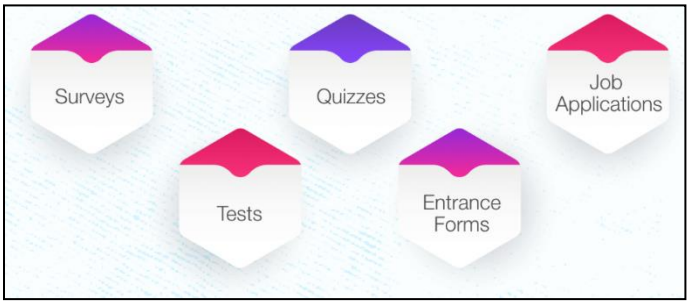

Figure 1.0: Benefits of Google Form

Recent years have seen a shift toward new teaching and learning strategies to improve student performance and engagement. The COVID-19 epidemic has expedited innovative teaching methods (Toquero, 2020; Lin et al., 2022). To satisfy modern expectations, institutions are incorporating STEM education into curricula (Arlinwibowo et al., 2021). Teaching innovation improves learning, especially in specialised domains like industrial design (Kian, 2022). Innovative teaching strategies like the scientific research project curriculum diversify teaching methods and enrich student learning (Liu, 2024). Studies show that interactive and innovative teaching methods work better than standard ones (Tanana, 2022). Innovative teaching improves student achievement and diversity (Naz & Murad, 2017).

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In higher education, pedagogical innovation is being studied to determine how it affects student results (Walder, 2017). Higher education's focus on quality and treating students as customers reflects a larger trend toward improving student experience (Calma & Dickson-Deane, 2020). Integrating new teaching methods and formative assessment is also important (Vass, 2024). Education technology integration and its effects on higher education teaching-learning have also been studied (Ali, 2024). Additionally, students should develop innovation and entrepreneurship skills, especially in sports. In conclusion, the need for novel methods to engage students and improve learning outcomes is fast changing education. To satisfy students' different requirements in the modern educational environment, research emphasizes adopting new teaching methods, integrating technology, and encouraging innovation.

Nowdays, paperless technology in education has grown, and Google Forms has helped facilitate this transformation. Teachers can create surveys, quizzes, and evaluations using Google Forms, reducing the need for paper (Kalnow et al., 2019). Faculty can quickly collect and assess student responses using Google Forms to improve teaching (Radhaswati & Santosa, 2022). Google Forms can also be used to evaluate students in several subjects, making it easy for teachers to assess student learning (Rachmanto, 2020).

Digital tools like Google Drive help schools go paperless. Integrating office activities improves efficiency and reduces paper usage, particularly in higher education (Tatlı, 2024). Paperless technology improves digital operations and instruction in institutions, according to research (Cahyadi, 2020). The COVID-19 pandemic has accelerated paperless education, as online teaching heavily uses digital platforms like Google Classroom and Google Forms for material delivery and assignment submission (Mulatsih, 2020; Şanal, 2023).

Paperless classrooms are also being used in special education to provide more inclusive learning environments (Jampala & Shivnani, 2019). Special education teachers value paperless classrooms and digital tools for assessment and instruction (Jampala & Shivnani, 2019). Sustainable higher education development includes adopting new media technologies like Google Forms. This fits with paper reduction and environmental objectives. Google Forms is a major step toward paperless education. Instructors may improve evaluation, student engagement, and environmental impact by using Google Forms. Paperless solutions improve efficiency and availability and support education's digitization and environmental preservation efforts.

An increasing number of educational settings across many disciplines are embracing the use of digital tools like Google Forms. Research has shown that Google Forms is quite good at protecting data, according to Rachmanto (2021). Teachers of English as a foreign language (EFL) have used Google Forms to administer assessments to their students. According to Sari et al. (2020), there are benefits and drawbacks to using them. Usman et al. (2022) also found that Google Forms were useful for evaluating the effectiveness of online classroom instruction during the COVID-19 pandemic.

Aside from language classes, Google Forms has been used in many more fields to test students' critical thinking skills, including science (Maulidiansyah et al., 2021). Furthermore, Google Forms has been successfully integrated into the study of secondary metabolites via the "Sudarmin Inquiry Model" (Sudarmin et al., 2022). Students' ability in fundamental English grammar has been found to improve when they use Google Forms (Handayani, 2023). A wide variety of educational needs, including assessment, data collection, and the enhancement of

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learning outcomes, can be met with the help of Google Forms, according to the literature. In times of catastrophes like the COVID-19 pandemic, instructors can skillfully traverse the ever-changing world of education by strategically utilizing modern technologies like Google Forms.

To put nutshell, there are many different reasons that researchers are motivated to create SPM Economics Google Form information. According to Thapaliya, Adhikari, and Rana (2023), the traditional method of education, which consists of chalk and talk, is no longer suitable in the 21st century and would need to evolve in tandem with the progression of technology around the world. The interest of students in technology is growing, and digital learning is leading to higher levels of academic accomplishment among students. Consequently, this has the potential to indirectly cut down on the amount of paper that is used and wasted in the field of education (Poobalan, Talip, & Jin Xiang, (2023). This study aims to determine pupil achievement in economics by using Google Forms as a teaching and learning resource.

Method & Material

This study was conducted at SMK Raja Jumaat, Port Dickson, Negeri Sembilan, Malaysia. The sample of this study is 27 students who took the economics subject of SPM 2023. The sample was chosen because they were weak and had a low performance in paper 1 Economics of the Malaysian Certificate of Education (SPM). In order to overcome the issue of low student achievement, researchers used Google Form in learning and economic facilitation by using the Kemmis & McTaggart (1988) model. The Kemmis & McTaggart (1988) paradigm, which is illustrated in Figure 2.0, was implemented in this investigation. According to this model, the action research process commences with the teacher conducting reflection, followed by the planning, acting, and observation phases, which are collectively referred to as loop 1. In the event that the issue remains unresolved, the researcher must reintroduce the process to loop 2 until the issue is resolved. This model assists researchers in the planning and execution of action research.

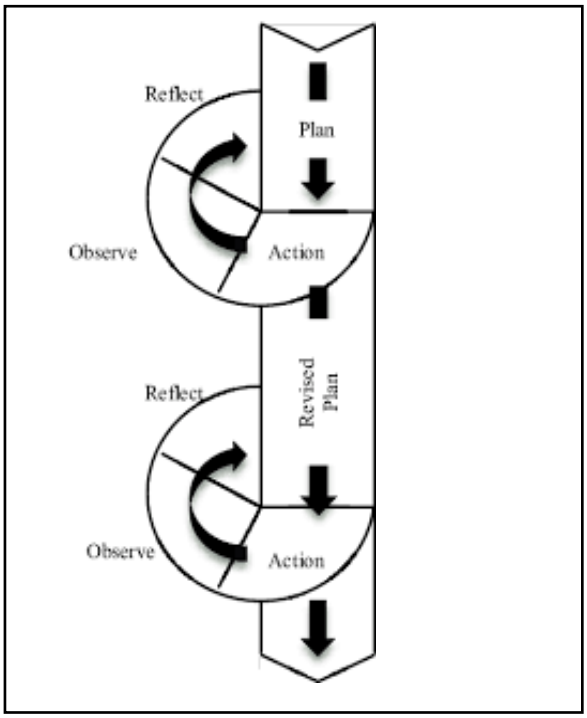

Figure 2.0: Model Kemmis and McTaggart (1988)

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Model Kemmis and McTaggart (1988)

Researchers seeking to effect change in educational contexts would do well to follow the advice of action researchers Kemmis and McTaggart (1988) and use this approach. Based on the figure 2.0, planning, acting, observing, and reflecting are the usual phases of this model's iterative process (Noermanzah & Suryadi, 2020). Education, nursing, and language acquisition are just a few areas where this approach has been used by researchers to improve practice (De-La-Cueva-Ariza et al., 2018; Asya'ari & Yunus, 2021; Rabgay, 2023). Research on reading comprehension, critical thinking, and the development of soft skills via collaborative projects has all made use of the Kemmis and McTaggart model (Purwaningsih & Wangid, 2021; Samat et al., 2019; Marlina, 2021). This model's strength is in the methodical way it allows researchers to plan, execute, and assess treatments to improve certain areas of interest; this approach is structured (Ilahi et al., 2021).

Classroom action research and participatory action research are two examples of how the Kemmis and McTaggart approach has been modified to fit various research settings (Khotimah, 2023; Azizah, 2023). These modifications showcase the model's adaptability and its capacity to be used in various research contexts. According to Robinson (2016), researchers can actively include stakeholders, put interventions into place, and reflect on the results to guide future activities by adhering to the principles of action research. This cycle is in line with action research's fundamental principles, which stress the need of teamwork, self-reflection, and progress rather than stagnation (Blegur & Lumba, 2019).There are four steps of this research is described in depth in table 1. The project required eight weeks for completion.

Findings

Planning

According to the preliminary survey, pupils are less interested in studying economic subjects. The findings of the monthly test analysis revealed that students performed poorly on paper 1 of the SPM Economics topic. As a result, the researchers use Google Forms to prepare their application strategy for genuine SPM test questions and SPM trial questions from 2018 to 2022. Here is how researchers create Google Form Economics. Berdasarkan rajah 3.1, penyelidik menukarkan bahan teks fizikal ekonomi kepada gambar berformat Jpeg melalui powerpoint dan seterusnya menggunakan gambar Jpeg berkenaan dalam kuiz menerusi Google form. Akhirnya Google Form kuiz ekonomi akan terbentuk dan dijadikan bahan e-pmbelajaran dalam kajian tindakan ini bagi meningkatkan prestasi ekonomi.

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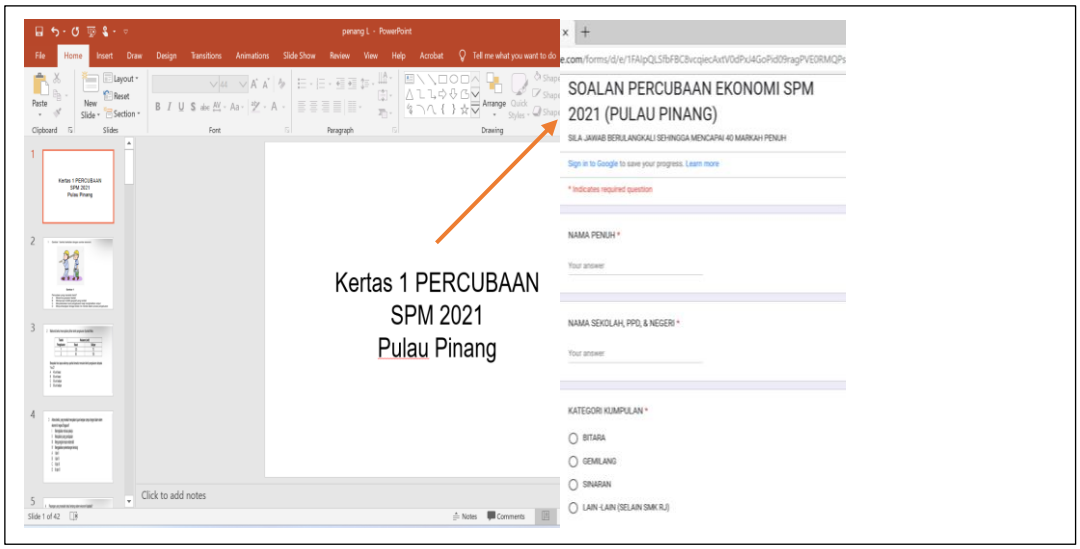

Figure 3.1: Converting Hardcopy Materials (SPM Economics Questions) to Softcopy via Microsoft PowerPoint and then *in Jpeg format and integrating into a Google Form*

The Google Form that was created was posted on social media with the economics class group, and students were given three days to respond. This allows them to respond at a specific time, with the target student passing the target score of 35 out of 40.

Action

At this point, the majority of students can access and meet the aim. Initially, just 7 out of 27 people were unable to meet the aim. Seven students are unable to participate due to problems with internet connectivity. To solve the difficulty, the teacher asked the student to complete the Google Form assignment for free at the school computer lab and access centre at the specified time. This course lasts eight weeks and includes a variety of economic issues presented in the form of objective quizzes.

Observations

At the observation level, students are tested in class on real-world economic problems. The researcher discovered that the students were capable of achieving the goal. Participating students improved their performance in Paper 1 Economics.

Reflection

Assessment and evaluation is the process of determining how much students know, understand, and can achieve or have mastered what is learned based on performance results in economic tests and achievement levels outlined in curriculum documents. The application of this google form allows teachers to carry out continuous assessment throughout the teaching and learning process. Teachers must also organize, create, deliver, assess, record, and report student success on these tests.

Based on table 1, shows that 27 pupils had pre-test scores below 15 over 40 marks. Afterwards, the exam questions were added to the Google form, and students were given ongoing training for eight weeks. As a result, their performance improved. Ten students had scores between twenty-one and thirty, six students between sixteen and twenty-one, and eleven students between thirty and forty. This points to a significant improvement in pupils' economics academic performance. In conclusion, researchers may address practical difficulties, improve

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educational practices, and enhance learning outcomes using the robust framework provided by the Kemmis and McTaggart model of action research. Scholars can make significant contributions to knowledge advancement and field betterment through evidence-based interventions and reflective practices by incorporating this paradigm into their research methods.

Table 1: Pre and Post Test Outcomes

Marks	Pre Test	Post Test 1	Post Test 2
	Number of Students		
31 – 40	0	8	11
21 – 30	0	7	10
16 – 20	0	7	6
11 –15	10	5	0
06 – 010	10	0	0
00 – 05	7	0	0
Total Students	27	27	27

Discussion

The repeated use of quizzes, particularly through platforms like Google Forms, has been shown to enhance student achievement across various educational contexts. This improvement can be attributed to several interrelated factors, including increased engagement, better preparation, and the reinforcement of learning through retrieval practice.

Firstly, the implementation of pre-class quizzes has been linked to enhanced student preparedness and engagement. Safitri (2023) found that students who are aware of upcoming quizzes tend to prepare more thoroughly, leading to improved learning outcomes. This is supported by findings from (Julaihi, 2023), which indicated that regular engagement with quizzes correlates positively with students' performance in subsequent assessments. The structure of quizzes encourages students to engage with the material outside of class, fostering a habit of self-directed learning that is crucial for academic success.

Moreover, the frequency of quizzes serves as a form of retrieval practice, which has been shown to reinforce learning. El-Hashash (2022) noted that students who participated in weekly quizzes demonstrated better performance on midterm and final examinations compared to those who did not. This aligns with the spacing effect highlighted by (Argyriou et al., 2022), where spaced retrieval practice through quizzes contributes to long-term retention of information. The consistent application of quizzes not only aids in knowledge retention but also helps students become familiar with the assessment format, thereby reducing anxiety and improving performance during formal evaluations.

Additionally, the use of online quizzes, such as those administered via Google Forms, provides immediate feedback, which is essential for effective learning. Lailaturrahmi et al. (2020) emphasized that timely feedback allows students to understand their mistakes and correct misconceptions, further enhancing their learning experience. This immediacy of feedback is crucial in maintaining student motivation and engagement, as it allows for a more dynamic learning environment where students can actively participate in their educational journey.

In summary, Students gain important experience by working on Google form economy practices in this way. Students can also learn about how to answer Economy Paper 1. It can also have an indirect impact on students' attitudes and behaviour through self-learning. As a result,

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the student displayed responsibility towards the public exam in order to achieve excellence. The Kemmis and McTaggart model assists researchers in solving challenges related to students' achievement in economics subjects. The incorporation of Google forms into economic activities assists students in improving their grasp of the subjects being studied, increasing their learning motivation, improving teamwork, improving resource management skills, and providing learning experiences that are relevant to the real world. As a result, students can improve their performance in the economics topic.

Conclusion

Put simply, research has demonstrated that using Google Form quizzes in the classroom improves students' comprehension and performance by providing them with opportunities to practise retrieval and repetition. Google Forms is an excellent tool for assessments since it saves time and money and provides thorough scoring results that help with both instruction and evaluation (Radhaswati & Santosa, 2022). Educators can utilise these characteristics to build multiple-choice quizzes, which helps students learn by doing.

Studies have shown that students do better in school when they practice, especially when they use self-testing tools like quizzes. For example, one study indicated that students who took practice exams had higher levels of confidence in their own abilities and did better on final exams (Naujoks et al., 2022). This lines up with the idea of retrieval practice, according to which practicing recalling previously learnt material improves both memorization and comprehension (Vaughn et al., 2024). In addition, research has shown that students perform better when they engage in a variety of practice activities rather than just repeating the same ones, which suggests that quiz design might be improved to enhance educational advantages (Carvalho et al., 2022).

Immediate feedback is essential for effective learning, and Google Forms' dynamic nature makes it possible. Students can better fill up their knowledge gaps with the help of feedback and modify their study methods appropriately. Cummings et al. (2023) found that when students practise retrieval skills with other successful learning strategies, their retention and understanding of the content is much improved. Also, students with different learning styles can be better met by using digital platforms like Google Forms, which allows them to practise at their own pace and connect with the material in a personalised way.

Finally, students are able to understand and apply economic theory through the usage of Google Forms for economics quizzes and assessments. Researchers can also use the Kemmis and McTaggart models to help them figure out how to best help students with their economics classes. Google Form quizzes are a great tool for raising students' comprehension and performance because of the repetitive activities they provide. Google Forms is a powerful tool for improving learning retention in educational settings since it provides quick feedback, allows for varied practice, and can accommodate different learning styles.

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References

Argyriou, P., Benamar, K., & Nikolajeva, M. (2022). What to blend? exploring the relationship between student engagement and academic achievement via a blended learning approach. Psychology Learning & Teaching, 21(2), 126-137. https://doi.org/10.1177/14757257221091512

Arlinwibowo, J., Retnawati, H., & Kartowagiran, B. (2021). How to integrate stem education in the indonesian curriculum? a systematic review.. https://doi.org/10.31643/2021.03

Asya'ari, N. and Yunus, M. (2021). The use of sing along song in the learning of the possessive adjective and possessive pronoun. International Journal of Academic Research in Business and Social Sciences, 11(6). https://doi.org/10.6007/ijarbss/v11-i6/10244

Azizah, N. (2023). The application of learning media based-magic box to improve learning outcomes in islamic history material. International Social Sciences and Humanities, 2(2), 461-466. https://doi.org/10.32528/issh.v2i2.255

Blegur, J. and Lumba, A. (2019). Improving teaching skills of the prospective physical education teachers through drill guide method. Jurnal Pendidikan Jasmani Dan Olahraga, 4(2), 178-188. https://doi.org/10.17509/jpjo.v4i2.19171

Cahyadi, A. (2020). Covid-19 outbreak and new normal teaching in higher education: empirical resolve from islamic universities in indonesia. Dinamika Ilmu, 255-266. https://doi.org/10.21093/di.v20i2.2545

Calma, A. and Dickson-Deane, C. (2020). The student as customer and quality in higher education. International Journal of Educational Management, 34(8), 1221-1235. https://doi.org/10.1108/ijem-03-2019-0093

Carvalho, P., McLaughlin, E., & Koedinger, K. (2022). Varied practice testing is associated with better learning outcomes in self-regulated online learning.. Journal of Educational Psychology, 114(8), 1723-1742. https://doi.org/10.1037/edu0000754

Cummings, E., Reeb, A., & McDaniel, M. (2023). Do not forget the keyword method: learning educational content with arbitrary associations.. Journal of Applied Research in Memory and Cognition, 12(1), 70-81. https://doi.org/10.1037/mac0000031

De-La-Cueva-Ariza, L., Hito, P., Martínez-Estalella, G., Via-Clavero, G., Lluch-Canut, T., & Romero-García, M. (2018). Implementation of the evidence for the improvement of nursing care to the critical patient's family: a participatory action research. BMC Health Services Research, 18(1). https://doi.org/10.1186/s12913-018-3177-8

El-Hashash, A. (2022). Weekly quizzes reinforce student learning outcomes and performance in biomedical sciences in-course assessments. Open Journal of Educational Research, 2(4), 168-178. https://doi.org/10.31586/ojer.2022.273

Handayani, N. (2023). Google form application effect on students' basic English grammar mastery. Elp (Journal of English Language Pedagogy), 8(1), 88-105. https://doi.org/10.36665/elp.v8i1.735

Ilahi, B., Defliyanto, D., & Syafrial, S. (2021). Homecourt application through zoom media to improve student dribbling techniques in handball courses in physical education study program fkip unib. Kinestetik Jurnal Ilmiah Pendidikan Jasmani, 5(1), 147-153. https://doi.org/10.33369/jk.v5i1.13591

Jampala, M. and Shivnani, T. (2019). A step towards sustainable development in higher education in india by implementing new media technologies. World Journal of Science Technology and Sustainable Development, 16(2), 94-100. https://doi.org/10.1108/wjstsd-08-2018-0056

Julaihi, A. (2023). The comparing the impact of asynchronous online quizzes on student learning outcomes in a computer communication and networking course. Journal of

Volume: 9 Issues: 66 [September, 2024] pp. 758 - 768
Journal of Islamic, Social, Economics and Development (JISED)
eISSN: 0128-1755
Journal website: www.jised.com
DOI: 10.55573/JISED.096662

Cognitive Sciences and Human Development, 9(1), 125-139. https://doi.org/10.33736/jcshd.4877.2023

Kalnow, A., Lloyd, C., Casey, J., & Little, A. (2019). Google forms - a novel solution to blended learning. Journal of Education and Teaching in Emergency Medicine, 4(2). https://doi.org/10.5070/m542043480

Khotimah, S. (2023). Mejilawi to enhance the symbolic thinking abilities for children's kindergarten. Edukasi Jurnal Pendidikan Islam (E-Journal), 11(2), 382-395. https://doi.org/10.54956/edukasi.v11i2.457

Kian, T. (2022). The effect of teaching innovation on learning effective-ness among the students of industrial design in higher education. Statistika Učet I Audit, 84(1), 39-47. https://doi.org/10.51579/1563-2415.2022-1.01

Lailaturrahmi, L., Permatasari, D., Badriyya, E., & Wahyuni, F. (2020). Google forms as a useful tool for online formative assessment of a pharmacotherapy course in indonesia. Pharmacy Education, 20(2), 5-6. https://doi.org/10.46542/pe.2020.202.56

Lin, P., Huang, L., & Lin, S. (2022). Why teaching innovation matters: evidence from a pre- versus peri-covid-19 pandemic comparison of student evaluation data. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.963953

Liu, H. (2024). Scientific research project curriculum: a clever teaching method of "scientific research nurturing teaching". SHS Web of Conferences, 187, 01018. https://doi.org/10.1051/shsconf/202418701018

Marlina, M. (2021). Developing students' soft skills through group-work method in cost accounting learning. Jpi (Jurnal Pendidikan Indonesia), 10(1), 34. https://doi.org/10.23887/jpi-undiksha.v10i1.24994

Maulidiansyah, D., Meutia, I., & Istiyono, E. (2021). Computer-based two-tier diagnostic test to identify critical thinking skills in optical instrument.. https://doi.org/10.2991/assehr.k.210326.059

Mulatsih, B. (2020). Application of google classroom, google form and quizizz in chemical learning during the covid-19 pandemic. Ideguru Jurnal Karya Ilmiah Guru, 5(1). https://doi.org/10.51169/ideguru.v5i1.129

Naujoks, N., Harder, B., & Händel, M. (2022). Testing pays off twice: potentials of practice tests and feedback regarding exam performance and judgment accuracy. Metacognition and Learning, 17(2), 479-498. https://doi.org/10.1007/s11409-022-09295-x

Naz, F. and Murad, H. (2017). Innovative teaching has a positive impact on the performance of diverse students. Sage Open, 7(4), 215824401773402. https://doi.org/10.1177/2158244017734022

Noermanzah, N. (2020). Improving students' ability to analyze discourse through the moodle-based blended learning method. English Review Journal of English Education, 9(1), 81-94. https://doi.org/10.25134/erjee.v9i1.3781

Priatmoko, S., Diliarosta, S., & Ruliyanti, T. (2022). The using of google form application for assessment of metabolite secondary learning with "sudarmin inquiry model" integrated ethnoscience and stem.. https://doi.org/10.2991/assehr.k.211125.121

Purwaningsih, W. and Wangid, M. (2021). Improving students' critical thinking skills using time bar media in mathemathics learning in the third grade primary school. Jurnal Prima Edukasia, 9(2). https://doi.org/10.21831/jpe.v9i2.39429

Rabgay, T. (2023). Multiple iterations in bhutanese secondary science teachers' implementation of action research.. https://doi.org/10.21203/rs.3.rs-3320669/v1

Rachmanto, A. (2020). Optimizing google drive media for writing paperless office letter. Proceeding of International Conference on Business Economics Social Sciences and Humanities, 1, 591-597. https://doi.org/10.34010/icobest.v1i.94

Volume: 9 Issues: 66 [September, 2024] pp. 758 - 768
Journal of Islamic, Social, Economics and Development (JISED)
eISSN: 0128-1755
Journal website: www.jised.com
DOI: 10.55573/JISED.096662

Rachmanto, A. (2021). Analysis and design of incoming mail filing information systems at universities, by optimizing the use of google drive. Proceeding of International Conference on Business Economics Social Sciences and Humanities, 2, 412-420. https://doi.org/10.34010/icobest.v2i.300

Radhaswati, I. and Santosa, M. (2022). Teachers' perceptions: the use of google form as a media to assess primary school students. Edutec Journal of Education and Technology, 5(4), 910-924. https://doi.org/10.29062/edu.v5i4.308

Robson, M. (2016). Action research: principles and practice. Action Learning Research and Practice, 13(3), 283-285. https://doi.org/10.1080/14767333.2016.1220174

Rosman Ali, N. (2024). An investigation into the impact of educational technology on the teaching-learning process in higher education. International Research Journal of Innovations in Engineering and Technology, 08(05), 142-149. https://doi.org/10.47001/irjiet/2024.805022

Safitri, E. (2023). The effect of pre-class quizzes assisted flipped classroom learning on student learning outcomes in the biochemistry course of fatty acid metabolism. Jurnal Pijar Mipa, 18(6), 898-903. https://doi.org/10.29303/jpm.v18i6.5745

Samat, M., Ghaffar, M., Manickam, R., & Yunus, M. (2019). Virco to enhance reading comprehension. Multilingual Academic Journal of Education and Social Sciences, 7(1). https://doi.org/10.46886/majess/v7-i1/5940

Şanal, S. (2023). Digital assessment tools for special education teachers: challenges and opportunities. Yaşadıkça Eğitim, 37(2), 477-488. https://doi.org/10.33308/26674874.2023372556

Sari, A., Iswahyuni, D., Rejeki, S., & Sutanto, S. (2020). Google forms as an efl assessment tool: positive features and limitations. Premise Journal of English Education, 9(2), 231. https://doi.org/10.24127/pj.v9i2.3037

Tanana, S. (2022). Innovative format of organization teaching of foreign languages in the professional preparation of future teachers-philologists. European Humanities Studies State and Society, (2), 138-150. https://doi.org/10.38014/ehs-ss.2022.2.08

Tatlı, H. (2024). Paperless technologies in universities: examination in terms of unified theory of acceptance and use of technology (utaut). Sustainability, 16(7), 2692. https://doi.org/10.3390/su16072692

Toquero, C. (2020). Challenges and opportunities for higher education amid the covid-19 pandemic: the philippine context. Pedagogical Research, 5(4), em0063. https://doi.org/10.29333/pr/7947

Usman, U., Muhammad, T., & Yanto, B. (2022). How to apply android applications (edmodo) and google forms as learning media in historical learning in high school. Al-Ishlah Journal of Education, 14(4), 5477-5482. https://doi.org/10.35445/alishlah.v14i4.1882

Vass, V. (2024). The coherence between innovative teaching methods and formative assessment in higher education. International Journal of Advanced Corporate Learning (Ijac), 17(3), 108-116. https://doi.org/10.3991/ijac.v17i3.45657

Vaughn, K., Fuegen, K., Goddard, P., & Krull, D. (2024). The influence of self-testing websites on college exam performance.. Scholarship of Teaching and Learning in Psychology, 10(1), 30-43. https://doi.org/10.1037/stl0000258

Walder, A. (2017). Pedagogical innovation in Canadian higher education: Professors' perspectives on its effects on teaching and learning. Studies in Educational Evaluation, 54, 71-82.