

INVESTIGATING THE IMPACT OF DIGITAL LITERACY INSTRUCTION IN VIRTUAL SCHOOL TOWARDS ENGLISH LEARNING PROGRAM

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Abstract

This research was to find out the impact of google forms that were used by the teacher as an assessment tool at SMK Persada Tamalatea. This research used a descriptive qualitative method. The instrument was employed through observation and interview to know the impact that the teacher felt using google form as an instructional technology tool in assessing students' knowledge during distance learning at SMK Persada Tamalatea. Based on the results obtained, the results of this research indicate that the use of google forms has more positive than negative impacts on teachers in performing assessments during the pandemic situation. It can be concluded that the positive impacts are in terms of ease of use, efficiency in time, energy and cost, attractive appearance, helpful features, accuracy in scoring, minimized paper usage, and making the teacher more technologically literate. It is quite effective to develop it as an assessment tool in the learning process, especially in online learning. Nevertheless, it required a stable connection and google account. It is incapable of detecting fraud, requires additional security, and it cannot be adapted to the bold, italic and underlined word functionalities. However, teachers have their own ways of solving the problem.

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INTRODUCTION

In the 21st century, the development of information and communication technology has significantly affected the improvement in all aspects of human life. Therefore, everyone is expected to be digital literate. It is a basic knowledge needed by all citizens to be able to deal with modern technology in their everyday lives nowadays, especially in education (Tsai, 2002). According to Kerr (2006), digital literacy is the ability to use digital technology tools to access, manage, integrate, analyze, and evaluate information. Examples of digital literacy knowledge are the

ability to connect to adequate internet network devices and install various software for online learning.

Due to the Covid-19 pandemic, educational institutions, such as schools, colleges, and universities, have been forced to implement digital ways of working to ensure that students are still able to learn during this time. Integration of technology into the teaching and learning process brings innovation where a learning process can be conducted virtually despite time and place boundaries. The use of technology has advanced beyond its functions as learning media and support systems into platforms for online learning. Online learning includes computer-based learning, web-based learning, virtual classrooms, and digital collaborations. Teachers can create fresh learning experiences for students by using multimedia, educational apps, or websites. As cited by Asdar (2020), online learning uses a set of technology applications or digital tools to teach.

Therefore, implementing technology in the teaching and learning process is not an option anymore; it is a must. Teachers who use technology applications in education can ideally support teaching across the curriculum, enable learning out of school hours, encourage communication between students, teachers, and parents, and enhance the development of digital citizenship skills. It is basically accepted as a modern instrumental tool which empowers the teachers to strengthen the students' interests. Instructional technology does not simply refer to computers, laptops, or smartphones. It means to any tool that is used to enhance the educational process, like online applications (*software*) that allow students to create, connect, explore, interact, and learn new skills.

In the context of learning activities, assessment is important to enhance the quality of learning. It is a part of the evaluation process to measure a student's outcomes. Also, to see the effectiveness of the learning process that teachers apply to their students. Additionally, according to Guskey & Anderman (2013), students' knowledge is determined by their ability to answer a number of questions on a certain subject. Aalaei, Ahmadi, & Aalaei (2016) explained that assessing students'

competence motivates them to learn. They also sorted multiple-choice tests and essays, which are two of the most common ways to evaluate and test people

However, teachers are free to determine the form of assessment and the form of assessment that is frequently used in education is the form of exams. Nugroho (2018) said the form of exam also has various forms, such as oral exams, written exams, or computer-based exams. Manual assessment is considered an overwhelming activity because it is usually done on paper-based system. This of course takes a long time, energy and costs too much money. It also tends to human error. Lacaster, Thomas; Clarke (2017) said this condition is a common problem that is felt by the teachers. Furthermore, it is not a naïve thing that any teacher can benefit from the use of web-based technology in any way to get advantages.

Gül, Emrah et al. (2015) stated that “the number of educational software is increasing every day and such software is offered to students’ access”. It is essential to pay attention to technological developments also in measurement and evaluation since technology has become integrated with education.” With the rise of technology today, the use of software is something familiar to help students and teachers do their work. One of software that commonly used for assessment is google form. Google form is a free application that facilitates the online surveys, exam forms, questionnaires, and quizzes or collects information quickly and efficiently. According to Yunita (2019) the features of google forms are very easy and friendly to access by users. Based on its features, as a form generator, the features can be explored not only limited to making a questionnaire but can also design activity sheets like questions or tests.

This is a web-based application that everyone can provide feedback or answers swiftly from anywhere by using the internet on computer, laptop or smartphone. Sianipar (2019) said with this application, a lecturer or a teacher does not need paper anymore to print out and the time it takes will be more cost-effective in sharing, collecting and analyzing the results of the test or worksheet. It is a great alternative for teachers to create and adopt in organizing students’ tasks to more effectively and efficiently assess students’ knowledge. Based on the explanation above, the researcher is interested in conducting a research under the title “Investigating the Impact of Digital Literacy in Virtual School towards English Learning Program” at SMK Persada Tamalatea. The reason is that the school has implemented digital literacy

instruction, which uses Google form as an assessment tool in online learning during a pandemic situation and the researcher wants to know the impact of its use.

LITERATURE REVIEW

Dewi Kurniati (2020), In their study that investigated the use of Google form in giving listening comprehension tests and knowing the students' responses toward online test by using Google forms, they discovered that the students have positive responses towards the use of Google form in the listening comprehension test. The google form is a substitution medium for teaching and evaluating. The students are interested in participating and completing the test. Also applying the Google form is relatively easy both for the lecturer and students.

Adelia et al. (2021), in their study "The Role of Google Form as an Assessment Tool in ELT" discovered that there are several advantages to using Google Form as an assessment tool in ELT which teachers could create surveys to meet curriculum objectives, ask various types of questions, apply validation option to control data entry, create professional looking forms using themes and get quick answers and respond instantly anywhere. To upset an assessment in Google Form, the teachers should do several things that are called "preparation stages." The teachers need to design such as things as assignment identity, student name, and ID, the content of worksheets (text/narration, image/visual, web links, videos, etc.)

Siti Ngafifah (2020) found that "The Use of Google form in improving the Effectiveness of Students' Online learning assessment at the time of Covid 19 in SD IT Baitul Muslim Jepara." According to the findings of this study, the learning assessment using the Google form was less effective. Due to the feature limitations, design, and lack of editing history. But, the use of Google form application get a good response from teachers and parents because it is easy to use, the program is lighter and accessible and also minimized the costs.

METHODS

The Google forms are equipped with several types of questions that function as an assessment tool. This research focuses on the impact of using google forms in assessing students' knowledge. The research method employed was qualitative descriptive methodology. Many researchers use a qualitative approach to explore the behavior, perspectives, experiences, and feelings of people. This research purpose is simply to gain a deep understanding of a case or phenomenon itself, not to generalize this case to other cases or contexts. The researcher

wants to know the use of google form as an assessment tool by the teachers, whether there is a good or bad impact on them. The research was conducted at SMK Persada Tamalatea and involved two English teachers as research subjects.

INSTRUMENT

The researcher used observation and interview to determine the impacts that teachers felt in using google form as an assessment tool during online learning in English subject. The researcher used semi-structured interviews. The interview guide consisted of ten questions about the teacher's experience in using google form in assessing students' knowledge. To find out the results of this research, the researcher used a voice recorder and took some pictures as documentation material.

RESULT AND DISCUSSION

The result of this research showed that the use of Google Forms as an assessment tool certainly has some impacts on English teachers at SMK Persada Tamalatea, which was carried out online throughout the pandemic situation. According to the teachers' experiences, the use of Google Form has more positive impacts than negative impacts. It can be seen in the terms of ease of use, efficiency in time, energy and cost, attractive appearance, and effective in conducting assessment because it has the ability of perform auto grading and data management. Google form also have color palettes to enhance teachers' design. So, it can be said that google forms made teaches more technologically literate. Therefore, google form has several negative impact. Like, it need a stable connection and a google account to sign up, it is incapable of detecting cheating, it need to add more security and teachers still have to check students' work manually one by one. Also, it cannot be adapted to the bold, italic, and underlined word functions. However, teachers have their own ways of to solving the problem

CONCLUSION

Technological advances have a major impact on the development of education. Educators utilize technology to facilitate the teaching and learning process and improve the quality of education. Traditionally, assessment was done on a paper-based system. Nowadays, it has shifted to a technology-based system. One of the most widely used technologies for learning assessment is Google forms. The result showed that the use of google form gave

more positive impacts to the teachers in help them doing their job especially during the pandemic situation where everything must go online including assessment activity.

REFERENCE

- Aalaei, S., Ahmadi, M. A. T., & Aalaei, A. (2016). A Comparison of MultipleChoice and Essay Questions in the Evaluation of Dental Students. *International Journal of Advanced Biotechnology and Research*, 7(5), 1674-1680.
- Adelia, A., Miftahurrahmah, M., Nurpathonah, N., Zaindanu, Y., & Ihsan, M. T. (2021). The Role of Google Form as an Assessment Tool in ELT: Critical Review of the Literature. *ETDC: Journal of Research and Educational Review*, 1(1), 58-66.
- Agrawal, A., Aurangzeb, M., &Maurya, L. S. (2016). A Current Study on the Limitations of Agile Methods in Industry Using Secure Google Forms. *Procedia - Procedia Computer Science*, 78(December 2015), 291-297.
- Agung, B., Syaefulloh, S., Ridwan, I. M., Mamun, A. M. H., Sumpena, D., & Yulianti Zakiah, Q. (2018). Google Form-Based Learning Assessment. *Advances in Social Science, Education and Humanities Research*, 253, 529-531.
- Ali, A. R. F. F. (2018). Use of Google Forms in Teaching and Assessing English Phonology. *Journal of Basra researches for Human Sciences*, 43(4).
- Ardid, M., Gómez-tejedor, J. A., Meseguer, J. M., Riera, J., &Vidaurre, A. (2014). Online exams for blended assessment. *Study of different application methodologies. Computers & Education*.
- Asdar, A. F. (2020, December). The Effectiveness of Online Learning on Bahasa Indonesia during Covid-19 Pandemic. In *4th International Conference on Language, Literature, Culture, and Education (ICOLLITE 2020)* (pp. 5762). Atlantis Press.
- Basilaia, G., Dgebuadze, M., Kantaria, M., & Chokhonelidze, G. (2020). Replacing the classic learning form at universities as an immediate response to the COVID-19 virus infection in Georgia. *International Journal for Research in Applied Science & Engineering Technology*, 8(III).
- Bawden, D. (2001). Information and digital literacies: a review of concepts. *Journal of documentation*, 57(2):218-259.
- Cahya, J. K. (2017). *Utilizing Google Form As A Medium For Multiple-Choice English Language Testing* (Doctoral dissertation, Sanata Dharma University).
- Costley, Kevin C. (2014). *The Positive Effects of Technology on Teaching and Students Learning*. Associate Professor of Curriculum & Instruction Arkansas Tech University.
- Currie-Mueller, J. L., & Littlefield, R. S. (2018). Embracing service learning opportunities: Student perceptions of service learning as an aid to effectively learn course material. *Journal of the Scholarship of Teaching and Learning*, 18(1), 25-42.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of educational technology systems*, 49(1), 5-22.
- Earle, R. S. (2002). The integration of instructional technology into public education: Promises and challenges. *Educational technology*, 42(1), 5-13.
- Fitriyanti, E. (2021). Student's Preceptions of Learning Writing Skills Using Google Form during E-Learning.

- Forutanian, S. (2021). Diagnostic Test Assisted By Google Form for Digital Literacy Improvement of Iranian Accounting Students in ESP Course. *IAR Journal of Engineering and Technology*, 2(4).
- Gedera, D. (2014). Students' experiences of learning in a virtual classroom: An Activity Theory perspective. *International Journal of Education and Development using ICT*, 10(4).
- Ghasemi, B., & Hashemi, M. (2011). ICT: Newwave in English language learning/teaching. *Procedia - Social and Behavioral Sciences*, 15, 3098-3102.
- Gül, E., & Do, Ç. (2015). Development of an Attitudes Scale toward Online Assessment. *Procedia - Social and Behavioral Sciences*, 174(0 312), 529-536.
- Guskey, T. R., & Anderman, E. M. (2013). In Search of a Useful Definition of Mastery. *Educational Leadership*, 71(4), 18-23.
- Hidayat, N., & Sutopo, A. (2006). Peranan interpreter dalam pengembangan usaha ekspor industri rotan.
- Icit Technology Training and Advancement .2020. *Google Forms: Creating, Editing, and Distributing University of BN Wisconsin White water: Madison* Kepuasan Pelayanan mahasiswa. *Journal of Information System, Applied, Management, Accounting and Research*, 3(1), 16-22.
- Iqbal, M., Rosramadhana, R., Amal, B. K., & Rumapea, M. E. (2018). Penggunaan Google Forms Sebagai Media Pemberian Tugas Mata Kuliah Pengantar Ilmu Sosial. *Jupii: Jurnal Pendidikan Ilmu-Ilmu Sosial*, 10(1), 120-127.
- Iqbal, M., Simarmata, J., Feriyansyah, F., Tambunan, A. R. S., Sihite, O., Gandamana, A., Eza, G. N., Kurniawan, F., Asiah, A., Rozi, F., Faisal, F., Manurung, I. F. U., Ihwani, M., Nathan, P. L. A., Sitanggang, N., Simbolon, N., Simanjuntak, E. B., & Limbong, T. (2018). Using Google form for student worksheet as learning media. *International Journal of Engineering and Technology (IJET)*, 7(3.4 Special Issue 4), 321-324.
- Kerr, Marcel & Rynearson, Kimberly & Kerr, Marcus. (2006). Student characteristics for online learning success. *The Internet and Higher Education*. 9. 91-105. 10.1016/j.iheduc.2006.03.002.
- Kurniawati, D., & Lestari, S. (2020). Using Google Forms for Online Listening Test: Does It Work? *English Education: Jurnal Tadris Bahasa Inggris*, 13(2), 136-155.
- Kusmaryani, W. (2021). Perceptions of Border Area Lecturers and Students Regarding the Use of Computer Technology and Smartphone Applications in Learning English. *Journal of Languages and Language Teaching*, 9(4), 496-503.
- Lacaster, Thomas; Clarke, R. (2017). *Rethinking assesment by examination in the age of contract cheating*.pdf. Plagiarism Accross Europe and Beyond 2017, 2015-2228.
- Littlefield, J. (2018). *The difference between synchronous and asynchronous distance learning*, viewed 27 September 2020.
- Lynch, M. (2017). What is Digital Literacy? <https://www.thetechadvocate.org/what-is-digital-literacy/> (Accessed 23 October 2018).
- McBrien, J. L., Cheng, R., & Jones, P. (2009). *Virtual spaces: Employing a synchronous online classroom to facilitate student engagement in online learning*
- McLaughlin, T., & Yan, Z. (2017). Diverse delivery methods and strong psychological benefits: A review of online formative assessment. *Journal of Computer Assisted Learning*, 33,

- McLoughlin, C. (2011). What ICT-related skills and capabilities should be considered central to the definition of digital literacy? In T. Bastiaens and M. Ebner (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2011* (pp. 471-475). Chesapeake, VA: AACE.
- Miles, Matthew B. and A. Michael Huberman. (1994). *An Expanded Sourcebook Qualitative Data Analysis: Second Edition*. USA: SAGE Publications.
- Ngafifah, S. (2020). Penggunaan google form dalam meningkatkan efektivitas evaluasi pembelajaran daring siswa pada masa covid19 di sd it baitul muslim way jepara. *As-Salam: Jurnal Studi Hukum Islam & Pendidikan*, 9(2), 123-144.
- Nugroho, Prasetya, Nur, Arifi, dan Purwati, Dwi. 2018. Pengembangan Media Evaluasi Pembelajaran Sejarah Berbasis Google Formulir di SMA N 1 Prambanan. *Istoria: Jurnal Pendidikan dan Sejarah* 4(1): 1.
- Pham, D. T. (2018). Application of Google Forms in the English classroom. *The 2018 International graduate research symposium Proceedings*, 3rd, 131137.
- Reynolds, N. J. (2008). An Ecological Approach to ICT and Children. In: Benzie, D., Zammit, K. (eds.) *IFIP WG 3.5 International Conference -Valuing individual and shared learning: the role of ICT*. Charles University in Prague, Czech Republic.
- Riwayatiningsih, R., & Sulistyani, S. (2020). The Implementation of Synchronous and Asynchronous E-Language Learning in Efl Setting: a Case Study. *Jurnal Basis*, 7(2), 309-318.
- Sahidu, H., Gunawan, G., Indriaturrahmi, I., & Astutik, F. (2017). Desain sistem e-assessment pada pembelajaran fisika di LPTK. *Jurnal Pendidikan Fisika dan Teknologi*, 3(2), 265-270.
- Sarasvati, A. (2016). Pengembangan Science Assesment Website (Sc-Wb) Tema Sistem Ekskresi Manusia Untuk Kelas Viii Smp (Doctoral dissertation, Universitas Negeri Semarang).
- Sari, A. B. P., Iswahyuni, D., Rejeki, S., & Sutanto, S. (2020). Google Forms as an EFL assessment tool: Positive features and limitations. *Premise: Journal of English Education and Applied Linguistics*, 9(2), 231-250.
- Scanlon, E. (2021). Educational technology research: Contexts, complexity and challenges. *Journal of Interactive Media in Education*, 2021(1).
- Sebastianelli, R., & Tamimi, N. (2011). Business statistics and management science online: Teaching strategies and assessment of student learning. *Journal of Education for Business*, 86(6), 317-325.
- Sianipar, A. Z. (2019). Penggunaan Google Form Sebagai Alat Penilaian Kepuasan Pelayanan Mahasiswa. *Journal of Information System, Applied, Management, Accounting and Research*, 3(1), 16-22.
- Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, 33(4), 289-306.
- Sivakumar, R. 2019. *Google Forms in Education*. Journal of Contemporary Educational Research and Innovations: Tamilnadu.
- The Zapiet Team (2016). *The Ultimate Guide to Google Sheets: Everything you need to build powerful spreadsheet workflows in Google Sheets*. New York: Zaper Inc.

- Triwidayanti, K. R. (2014). *Ya, saya bisa! Memanfaatkan e-learning sebagai media pembelajaran*. Yogyakarta: PT. Kanisius.
- Tsai, M. J. (2002). Do male students often perform better than female students when learning computers? A study of Taiwanese eighth graders' computer education through strategic and cooperative learning. *Journal of Educational Computing Research*, 26(1).
- Yunita, F. (2019, December). The use of Google Form application as media for students' assessment. In *Proceedings of International Conference on English Language Teaching (INACELT)* (Vol. 3, No. 1, pp. 118-127).