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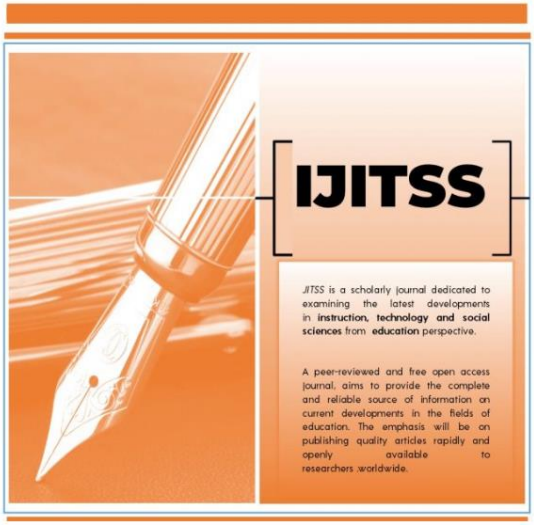

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Identify the Usage of Google Classroom Among Rural Primary School Teachers in Kedah State

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Abstract

The development of today's challenging education in line with technological development resulted in significant changes in areas including education. The current learning is more so as to use technology such as LMS through the Google Classroom app with a lot of help in the improvement and success of the students. The preparation of teachers in this change is also necessary to identify the level of their ability, especially in terms of acceptance and use of technology and facilitate learning process (PdPc). The Ministry of Education has launched the PAK21 programme and TS25 as a preparation to elevate the national education system. To realise this implementation, teachers play an important role in successfull of the plan. A study was conducted on the 100 teachers elected from several schools and districts to identify their use. This study is made by using quantitative method by means of information collection based on survey questions. The questionnaire was built based on a Model guide for tekonology (TAM) To view the relationship between the EU, its use facility (PEOU), Behavior (BI) and actual use (AU). Data analysis is processed using SmartPLS software to obtain results of findings. Results of the study found that there was a relationship between PEOU and BI and also between BI and AU. This shows the positive acceptance but the level of use remains low among rural primary school teachers. Therefore to ensure the use of Google Classroom certain parties should take serious attention to this matter.

Introduction

Advances Technological developments in education nowadays cannot be denied anymore. In technology education used are related to ICT or known as communication and information technology. The term "information technology" was found in the 1970s and it has grown until the 20th century where all areas have developed rapidly in the use of this technology. The increasingly complex development of the curriculum has now demanded high thinking skills that can be easily processed through information and communication technology (Hasnuddin, et al., 2015, quoted from Noriyani Binti Doman, 2017).

Malaysian EducationAl Development Plan (PPPM) 2013 -2025 (Mohd Suhaimin, 2017) states that in order to produce pupils with high-level thinking skills (KBAT) and quality schools i.e. through the implementation of 21st Century Education (PAK21) as stated by Frydenberg and Andone (2011) which states that in order to face PAK21, everyone should possess critical mindedness, knowledge and literacy. , media literacy and master of information and communication technology. Similarly, the School Transformation 2025 (TS25) aims to produce superior human capital through a fun learning environment, quality and visionary leadership, competent and highly compassionate teachers and strong community commitment (Mohd Suhaimin, 2017; A. Raman et al., 2021). This will be the cause of increasing the use of technology in learning and facilitation (PdDc).

E-learning is a method of learning that uses ICT as a facilitation in the teaching and learning process (P&P) as well as enabling self-learning to be implemented effectively (Mohd Suhaimin, 2017). Moore & Richardson (2002), states that e-learning means a learning accessible in a permanent location by requiring an internet connection. According to Berge (2001), technology is needed in higher education to improve the quality of

learning, improve access to education and courses, reduce educational spending and also improve education effectiveness.

Study Background

This adult e-learning is increasingly popularly used in education especially at the higher education level. According to Fleischman (2001), e-learning offers a suitable learning environment to assist learning activities inside and outside the classroom. Starting with that e-learning has been developed to primary and secondary schools. Various software on e-learning education has been introduced in the learning management system (LMS). For example, software used as LMS is like Blackboard 5.0 Basic Edition and E-Learning Author System which was used at Universiti Tun Hussein Onn (UTHM). The main problem is that LMS can be an expensive program financially, time and energy to ensure it works well (David, 2015).

Google Web 2.0 is one of the very well-known websites that offers a wide range of educational programs that have the potential due to the uniqueness of its internal construction functions offering high pedagogy, social and technological capabilities. Google Classroom is one of the new tools introduced in the Google app for education in 2014 (Izwan Nizal et. al, 2018). The use of the Google Classroom app is one of the agendas in the TS 25 development programme recommended by the Ministry of Education as a facilitation tool in this P&D process. Google classroom is an app that has been developed by Google Incorporation that allows teachers to build an online classroom area where they can manage all the documents required by the students. The document will be stored in Google Drive and can be modified in drive's apps such as google docs, sheets, etc. But what distinguishes between Google Clasroom and the usual Google Drive experience is the teacher and pupil interface for which Google Classroom is designed as a path for teachers and pupils to think and do work (sources from: google.com). The Google Classroom app can be a tool for distributing tasks, sending tasks and even evaluating collected tasks (Herman in Hammi, 2017). This study is to aim to see the effectiveness of google classroom usage among teachers who are in their learning.

Problem Statement

Beginning with the PAK21 plan, the Ministry of Education (MOE) has strengthened the information technology (ICT) skills to teachers and students by introducing subjects in 1999 (Noriyani, 2017). Subsequently, the TS25 plan was extended to the TS25 plan and at the Economic Council Meeting No. 2/2015, chaired by the Prime Minister on 19 January 2015, approved the proposed implementation of TS25 KPM (Azman Bin Shafii, 2017). The Ministry has formed PPPM with the aim of increasing the level and quality of education starting from primary school through information technology (ICT). PpPM has been implemented starting from primary schools throughout Malaysia according to their respective status, PAK21 and TS25 respectively. In relation to this, the Google Classrom app is one of the applications recommended by the Ministry of Education to be used in today's P&P process. This application is an application that is LMS applications are implemented in public and private schools. The Google Classroom app is available from Google's website that only requires internet networks and computers or smartphone equipment where students can browse them at any time without border limits. After a long time launched, Google Classroom's knowledge and use among teachers is still low including schools with a TS25 status despite being exposed to the use of Google Classroom.

Based on the information provided there should be a study on the use of the Google Classroom application after the MCO was launched to see how far the teachers achieved in realising the programme. The measurement of success to a programme is its implementation which will affect the use by the teachers involved. This study is designed to measure whether these applications are easy to use where teachers are easy to apply them in their teaching. In addition, this study is done to view attitudes or conduct regarding the acceptance of ease of use of this application in their teaching. The same goes for seeing their willingness to use the application in their daily activities is because the lack of skills and knowledge by instructors or students related to internet usage will make the P&P process poorly implemented (Abdul Manaf et. al, 2015).

Teachers must have high motivation to master this area of technology as the applications offered need to be treated by them in depth and may take a long time so that they are well-versed with the application before they can be passed on to pupils. According to Zuraini (2006) he stated that technology applications in education not only own computers but need to effectively and efficiently integrate their use in order to carry meaning quickly, easily and accurately.

Literature Review

The study was conducted to identify the use of Google Classroom by teachers in their PdPc. In this chapter will discuss past surveys related to the use of the Google Classroom app. There are several past studies that can be used as a reference to support the use of this application in the field of education. According to Ketut Sudarsana et al. (2019) Google Classroom is one of the LMS offered by Google companies to teachers. The app offers a central location to connect with students, ask questions and make assignments. In the development of world digital technology, Google Classroom helps provide online learning to today's digital students. This becomes a cause for teachers to organize classrooms more uniquely as a way from teaching methods as Google Classroom starts from empty papers that teachers will pattern.

PdPc Google Classroom

What does Google Classroom mean. It is an application specifically designed to facilitate the teaching and facilitation process (PdPc). Google Classroom is one of the products from Google Incoprated launched in 2014 through the Google App for education (GAFE). Google classroom has many advantages including free to users, easy to use by teachers and students due to the emergence and use of social media i.e. facebook, twitter and others affiliated with other google applications such as Google Form, Google Drive, Google Doc, Google Slides, Youtube and others (Abid Azhar & Iqbal, 2018; Rohman, 2017; Daud et al., 2015; Rathakrishnan et al., 2018). Advantages of google Classroom apps This has a larger storage space to enable greater storage of videos for learning as well as other documents that require greater storage space. In addition, this application is accessible from various smartphones where students can access them at any time and wherever they are needed. And most importantly is that the app is more cost-effective learning because applications have been provided for free. The app has been loaded into Google software and it is automatically available in every computer and smartphone hardware. As stated by Hilyah & Mochammad (2019) that each person has it can be used to run this Google Classroom App and the learning process of students can be done through smartphone tools or computers/laptops attractively and comfortably and can be stored anytime and anywhere.

According to Numertayasa (2017); quoted from Deviyanti, Ekawarna, Yantoro (2020) has defined the Google Classroom as a mixed learning horror for each educational scope so as to make it easier for a teacher to create, divide, and reject every paperless assignment. Teachers are also able to leverage the Google Classroom app as a liaison media between teachers and students at a time. Teachers are not only concentrated in degrees but can be said that rooms can be brought anywhere and are not limited to certain times and places only. In other words that the PdPc process by using this application is always continuously unlimited borders. The use of Google Classroom in education is very popular nowadays has been implemented worldwide including Malaysia. There is in an article stating that the use of technology in education has an influence on improving the learning process, making the learning process more efficient and effective, and also improving knowledge, new skills experience to teachers and students in implementing learning (Syazali et al. 2019; Don & Raman, 2019). In the process of PdPc Google Classroom, it has been conducted throughout the world as for example there is a university in Oman, buraimi Universiti Colleges (BUC) that has become one of the developing universities in Oman who are interested in providing a reliable technological environment for students and their faculty members. THE BUC has implemented Google Classroom in all its departments that creates the need to investigate the role of factors that could influence student acceptance of Google Classroom through an empirical study of those who created the need (M. Al Emran & K. Shaalan, 2014; M. Al-Emran & S. I. Malik, 2016; M. Al-Emran & K. Shaalan, 2017; M. Al-Emran & S. A. Salloum, 2017). Meanwhile, PdPc in Malaysia can be seen through the Ministry of Education, allowing the use of this Google Classroom application by teachers and students from 1 July 2019. Previously, the Ministry of Education (MOE) had subscribed to Frog VLE's services as LMS of the ministry of education. Frog Vle is an applications provided by YTL group through the YES package in the hope of helping teachers and students use the online learning system in schools. However, after the completion of the 1BestariNet Phase 2 service contract, they have agreed to use Google Classroom as an alternative learning platform option (KPM source, 2019).

Technology Integration Theory in PdPc

The beginning of learning using this technology has long grown since the previous century where the use of computer-based technology in education colleges has increased rapidly including the emergence of technology for visual presentation, simulation, access to course materials and websites worldwide and interactivity (Debevec & Shih, 2016). According to Heinich's statement, Molenda, Russel & Smaldina (2001) stated that since the beginning of the 20th century educators have used various types of technological aids to help them and improve learning to their students. This shows that teachers are constantly thinking about learning to be more effective and

easily practiced. This technological tool is defined as a tool commonly used in two different ways described in teacher educational material where technology can improve students' ability to solve problems or re-organize how students think about their problems and how solutions are (Pea, 1987; quoted from Lee H & Hollebrands, K., 2008). This is evident by AACTE's statement in the Committee on Innovation and Technology (2008); Niess (2005); Suharwato (2006); quoted from Lee, H., & Hollebrands, K. (2008) is evidence built suggesting that technology, pedagogical and content integration models are more effective in teacher preparation for using technology in their classrooms.

The results obtained from the integration of technology in this PdPc are known as mixed learning (blended learning). Terms for mixed learning, mixed mode learning and hybrid learning used alternately (Zhao & Breslow, 2013). According to Garrison & Kanuka (2004); Reasons, Valdares, & Slavkin (2005); Means, Toyama, Murphy, Bakia, & Jones (2010); Lack (2013); Ismail et al., (2019) quoted from Yiran & Truck (2013) that the hybrid or mixed learning refers to face-to-face learning combinations, including but not limited to online lectures and learning. This mixed learning allows for a smooth exchange of learning technology from teacher to student and it is very important that the goal should not only integrate educational technology in the classroom alone but also on the other hand the objectives of pedagogy should determine the difference in the mode of learning instruction (O'Byrne & Kristine, 2015). According to David A. Georgina's opinion, Myrna R. Olson (2007) states the creation and use of mixed learning is probably the most successful approach towards integrating technology into pedagogy. One of the most common assertions made is about the digital learning environment (DLE) or the computer learning environment (CLE) is that they focus on transmission of information and not on student learning and this assertion is done carefully.

To support the statement above Garrison & canuka (2004), in a crate from David A. et al. (2007) claims that the true mixed learning environment " represents the basis of reconsideration and reordering of teaching and dynamic learning beginning with the desire of a certain range of contextuals and contingencies.....". Regarding the use of technology integration in PdPc was reinforced with statements by several scholars such as Berson (1996); Yildrim & Kiraz (1999); Yildrim (2000); Reynolds & Morgan (2001); U.S. Department of Education (2005); quoted from Zhao, Yali & Bryant, Frances 2006; Raman, 2019) stated that large bodies of literature support the idea that technological training could help teachers form a positive attitude toward technology and technology integration into the curriculum. This shows that the technology training can boost teacher confidence to use technology in their PdPc. Learning is carried out in a mixture between face-to-face and online. The teacher will act as a facilitator to control the environment of the classroom environment in order to become more controlled. Teachers will also provide advisory services as and when needed. Students will be more interactive in learning in this mix than traditionally. This will enhance the understanding and performance of their achievements Raman, A. et al., 2015). This is supported in a statement that students spend time in class by engaging learning activities and also receiving indidvidually targeted feedback targets from instructors (Hamdan, McKnight, McKnight,& Afstrom,2013; in the crates from Zhao, Y., & Ho, A. D., 2013;

Methodology

In this chapter will discuss the methods used in the study. The study methods are divided into several types, namely basic research, applied research, action research and evaluation. The first basic research according to Rosinah (2011), quoted from Efie (2012) is to expand the existing knowledge and increase information on the problems to be studied and it is carried out before conducting further research.

Second is applied research according to Rosinah (2012), quoted from Efie (2012) stating that applied research is carried out to explore and identify problems for the purpose of planning strategies and actions to solve the problem.

Third is the research where research is best in the field of education especially in the context of professionalism development and data-based decision makers (Othman, 2011, quoted from Efie, 2012).

Based on several methods of study described above the methods of assessment studies are in line with the ongoing study, identifying the use of Google Classroom among teachers. The research is intended to look at the level of consumption especially in rural areas as most rural schools always lag behind compared to urban schools.

Study Design

The design of the study can be described as a systematic research plan to resolve a fame as stated by Sekaran (2000), Burn (1996), in a box from UMstudentsrepo (2013) stating research can be described as a systematic and

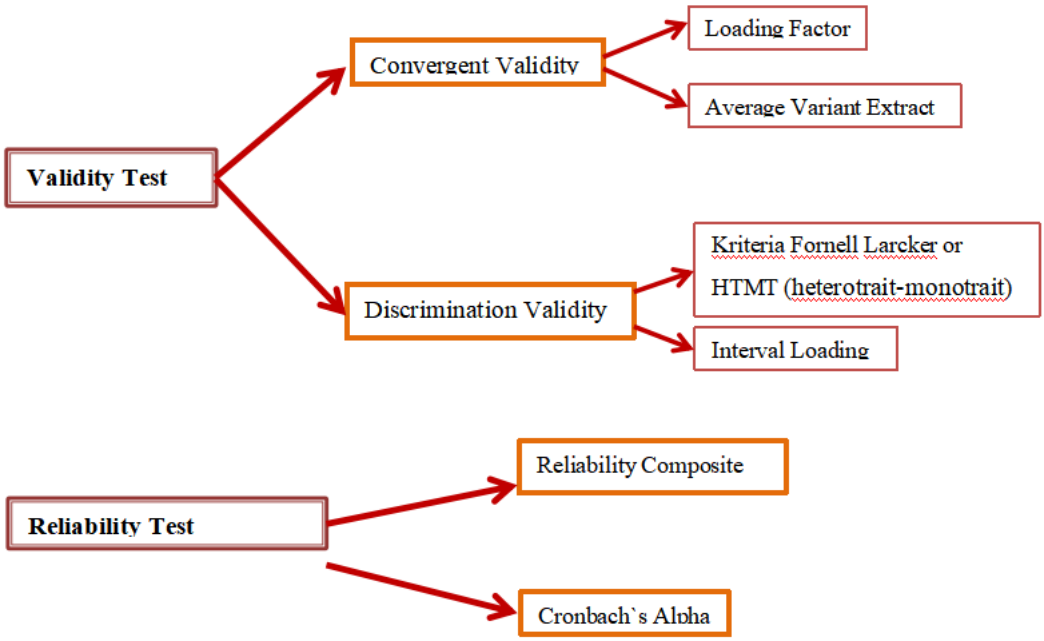
orderly effort to investigate problems specifically to provide solutions. The design also means that according to Aaker et al. (2000), quoted from Jilcha, (2019) is providing a specific framework for studying. The design for the study is divided into two parts, namely quantitative studies and qualitative studies. Meanwhile, the study was quantitative in shape.

Study Procedure

Prior to this study, a title discussion was held with the project supervisor to gain some overview of the development of education in Malaysia. Upon approval from various parties, the title to be studied is concerned about the use of the Google Classroom application among teachers. This data collection is made in approximately 2 weeks. Once all survey forms are collected, the review and verification process starts. After reviewing and verifying all the forms, the process of entering data is initiated using SPSS software as an analytical beginner. Then the data was sent and included in the SmartPLS software to be analyzed.

Scrutiny of this study is made to determine the criteria on whether it is reflective and formative construction because both have different criteria. As stated by Hair et al. (2017) if the measurement model meets all the criteria required then the researchers should evaluate the model structure. The study will be conducted based on a reflective measurement model. According to this model the assessment is based on 2 tests, namely testing of constraition and reliability testing. Here's a table on the evaluation process chart using the reflective measurement model:

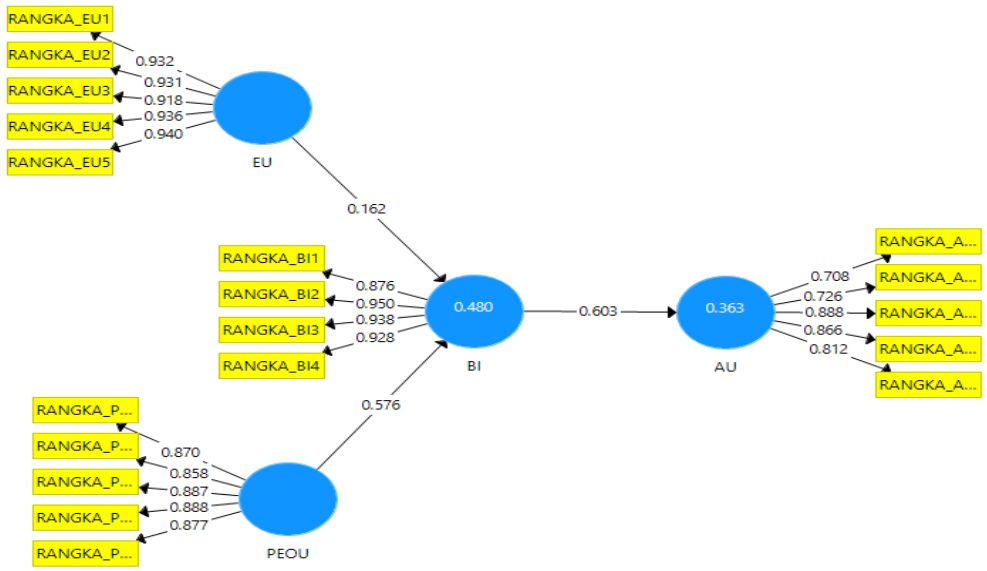
Table 1 Reflective Measurement Model Assessment Process Chart



Findings

In this chapter describes the findings of the study to identify the use of Google Classroom among teachers in rural primary schools. Several rural schools have been selected from several districts based on the status of the programme set by KPM. The study was conducted on 100 teachers representing each school selected. This study was conducted quantitatively using survey methods. The data collected will be analyzed using SmartPLS software. The results of this study can help improve the level of usage against Google Classroom by teachers in the future in their teaching and learning.

Table 2 Results of Smartpls Route Analysis



Hypothesis Results

After getting a definite decision on the veracity and reliability, the assessment will be made against the structural model decisions. This involves the process of examining the capabilities of the approximate model (model's predictive) and the relationship between the variable. Testing will be conducted to test the hypothesis of this study as below.

H1 : There is a positive influence on the usefullnes users (EU) of the google classroom application on user`s behaviour intention (BI).

H2 : There is a positive influence on perceiveness easy usage users (PEOU) google classroom applications over user`s behavioural intention (BI).

H3 : There is a positive influence on user behavioral intention (BI) google classroom applications over user`s actual use (AU).

In the structural model assessment test there are several criteria to be taken into account in order to carry out this test which is to determine the R square coefficion, blindfolding-based crossvalidated redudancy Q2 and statistically significant and relevant route coefgivers (Hair et al., 2018).

Table 3 *t* and *p* values

	T Statistics	P Values
BI - > AU	8.647	0.000
EU - > BI	1.708	0.088
PEOU - > BI	6.611	0.000

Conclusion

This chapter will summarize the findings that have been implemented. The findings will be detailed in several sections covering key findings, discussions, implications, limitations of the study as well as the direction and recommendations of further studies. All discussions to be described are based on the question of studies that have been described in chapter one of this study.

Summary of study

This study was implemented to identify the use of Google Classroom among teachers in rural primary schools. This study was conducted based on the question of the study presented:

First: Does the influence of usefullness use (EU) on user behavioral intention (BI) in the Google Classroom app among teachers?

Second: Does the influence of perceiveness easy of use (PEOU) on user behavioral intention (BI) in the Google Classroom app among teachers?

Third: Does the user's behavioral intention (BI) influence on actual use (AU) in the Google classroom app?

Data collection is done using quantitative methods using survey questionnaires as its instruments. The study was conducted on 5 rural schools with a total of 100 respondents. These respondents were selected among teachers only excluding educational setaf. Selection is made at random. Data revenue processing is to use SmartPLS software as an analysis tool.

There were 3 hypotheses the study has been tested in terms of distress and reliability. Finally a significant test is performed to get the contact value of each hypothesis.

Key Findings

The main findings of the study are intended to be shared with all information and knowledge related to this study with other studies as stated by Woodfield (n.d), cited in Eife (2012) which means the findings physically need to be easily understood and achieved by all and can also improve a study. The main criteria in the assessment of the assessment structure model are the measurement of R square and the level and significant pathway coating because in the analysis of using SEM-PLS this is through an approach in describing the variant to the endogenous latch variable where the main key target is R square level must have a high value.

Findings t Statistics

These statitic t-findings are values available from the passage cocale yield and p value per hypothesis. It determines the degree of inignivity of the relationship between each variable either dependant or free. In this study there are 3 hypotheses that need to be tested for their specificate levels:

H1 : There is a positive influence on the use (EU) of the Google Classroom app on user behaviour (BI).

H2 : There is a positive influence on easy usage (PEOU) of the Google Classroom app on user behaviour (BI).

H3 : There is a positive influence on user behaviour (BI) of the Google Classroom app on actual use (AU).

Closure

This study was conducted to identify the use of Google Classroom among rural primary school teachers in Kedah. Several questions have been put forward as an effort to obtain answers that can help in getting results that allow this study to be confirmed in terms of its permission.

In the course of this study, a number of problems were detected in the data analysis process but after the correction of the problem was completed successfully. The findings obtained from the study based on the title given show that google Classroom usage among rural primary school teachers in Kedah state is still low. The actual percentage

of consumption among these teachers is only 36% of the total number of respondents selected to participate in the study.

The results reflect the response or acceptance of teachers against Google Classroom are still low and require improvements to increase awareness to teachers about the use of this application in their PdPc.

Finally, hopefully this review will benefit the party requiring information related to the use of Google Classroom.

References

Abd Manaf, S. Z., Din, R., Hamdan, A., Mat Salleh, N. S., Kamsin,I. F. & Abdul Aziz, J. (2015). Penggunaan komputer dan internet Web 2.0 dalam kalangan generasi Y pelajar universiti. Journal of Advanced Research Design, 7(1), 10-18.

Abid Azhar, K., & Iqbal, N. (2018). Effectiveness of Google Classroom: Teachers' Perceptions. Prizen Social Sciemce Journal, 2(2). Retrieved from https://www.researchgate.net/publication/327417783.

Aman Bin Shafii (2017). Program sekolah transformasi 2025. Retrieved form http://www.jprisma.com/v1/index.php/program/sekolah-transformasi-2025.

David Andrew Jeffrey (2015). Testing the technology acceptance model 3 (tam 3) With the inclusion of change fatigue and overload, in the context of faculty from seventh-day adventist universities: A Revised Model. Andrews University School of Education.

Daud, Y., Raman, A., Don, Y., Sofian, O. F. M., & Hussin, F. (2015). The type of culture at a high performance schools and low performance school in the state of Kedah. *International Education Studies*, *8*(2). https://doi.org/10.5539/ies.v8n2p21

David A. Georgina, Myrna R. Olson (2007). Integration of Technology In Higher Education:A review of faculty self-perceptions. University of North Dakota, Teaching and Learning. Internet and Higher Education 11 (2008) 1‑8.

Deviyanti, Ekawarna, Yantoro (2020). Pengembangan Media E-Learning Berbasis Google Classroom Untuk Meningkatkan Hasil Belajar Siswa Pada Mata Pelajaran Ekonomi Kelas Xi Di Sma Unggul Sakti Jambi. Jurnal managemen pendidikan dan ilmu sosial Universitas Jambi Indonesia. Volume 1, Issue 1, Januari 2020 E-ISSN : 2716-375X, P-ISSN : 2716-3768

Don, Y., & Raman, A. (2019). School Management And Leadership: Teamwork In Schools. *Multidisciplinary Journal of Instruction (MDJI)*, *1*(2), 14–36. https://journal.mdji.org/index.php/MDJI/article/download/8/6

Efie Emeir (2012). BMM3113 Penyelidikan tindakan I. Retrieved from afiqekie.files.wordpress.com/2012/12/bmm3113_penyelidikan...

Frydenberg, D. & Adone (2011). Learning for 21st century skills. International conference on, p.p 314-318.

Hammi, Zedha. (2017). Implementasi Google Classroom Pada Kelas XI IPA MAN 2

Hilyah Ashoumi dan Mochammad Syafiuddin Shobirin (2019). Peningkatan Aktifitas Belajar Mahasiswa Dengan Media Pembelajaran Kelas Virtual Google Classroom.Prosiding Seminar Nasional Teknologi dan Sains (SNasTekS) 18 September 2019 ISBN: 978‑623‑91277‑6‑3.

Izwan Nizal Mohd Shaharanee, Jastini Mohd Jamil & Sarah Syamimi Mohamad Rodzi (2018). The Application of Google Classroom as a Tool for Teaching and learning. Journal of Telecommunication, Electronic and Computer Engineering,8(10). ISSN: 2180-1843 e-ISSN: 2289-8131

Jilcha, Kassu. (2019). Research design and methodology. Retrieved from https://www.researchgate.net/publication/335110374_Research_Design_and_Methodology/citation/download.

Joseph F. Hair, Jr., G. Tomas M. Hult, Christian M. Ringle, Marko Sarstedt (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Second Edition. Retrieved from http://lccn.loc.gov/2016005380 Copyright c 2017 by SAGE Publications, Inc. Identifiers: LCCN 2016005380/ISBN 9781483377445 (pbk.)

Joe F. Hair, (n.d). SmartPls. University of South Alabama, USA. Retrieved from www.smartpls.com

Kathleen Debevec and Mei-Yau Shih (2016). Journal of Research on Technology in Education Copyright © 2006, ISTE (International Society for Technology in Education), 1.800.336.5191 (U.S. & Canada) or1.541.302.3777 (Int’l), iste@iste.org, www.iste.org. All rights reserved.

KPM (2019). Google Classroom (GC). Retrived from https://www.moe.gov.my/pemberitahuan/pengumuman/google-classroom-gc

Ismail, S. N., Nur, A. H. B., Raman, A., & Purnomo, Y. W. (2019). A Mixed-Method Study of the Epistemological Teacher-beliefs towards Educational Research in Classroom Teaching Practices. *International Journal of Instruction*, *12*(4), 393–406. https://doi.org/10.29333/iji.2019.12426a

Lee, H., & Hollebrands, K. (2008). Preparing to Teach Mathematics With Technology: An Integrated Approach to Developing Technological Pedagogical Content Knowledge. Contemporary Issues in Technology and Teacher Education, 8(4), 326-341.

Muhammad Suhaimin Isnen (2017). Program Transformasi Sekolah Ts 2025. Retrived from http://www.cikgusuhaimin.com/2017/11/program-transformasi-sekolah-2025-ts25.html

Moore, M., & Richardson, (2002).Overcoming The Limitations Of Traditional Web Based Activities By Using Web_Compattible Applications.

M. Al Emran and K. Shaalan, “E-podium Technology: A medium of managing Knowledge at Al Buraimi University College via M-learning,” in BCS International IT Conference, 2014, pp. 1‑4.

M. Al-Emran and S. I. Malik, “The Impact of Google Apps at Work: Higher Educational. Perspective,” Int. J. Interact. Mob. Technol., vol. 10, no. 4, pp. 85‑88, 2016. https://doi.org/10.3991/ijim.v10i4

M. Al-Emran and S. A. Salloum, “Students’ Attitudes Towards the Use of Mobile Technologies in e-Evaluation,” Int. J. Interact. Mob. Technol., vol. 11, no. 5, pp. 195‑202, 2017. https://doi.org/10.3991/ijim.v11i5.6879

M. Al-Emran and K. Shaalan, “Academics’ Awareness Towards Mobile Learning in Oman,” Int. J. Comput. Digit. Syst., vol. 6, no. 1, pp. 45‑50, 2017. https://doi.org/10.12785/IJCDS/060105.6181122

Noriyani Binti Doman (2017). Implikasi google apps dalam pengajaran dan pembelajaran pelajar pesisir UTHM. Fakulti Pendidikan Teknikal Dan Vokasional Universiti Tun Hussein Onn Malaysia.

Raman, A. (2019). Potentials of Fog computing in higher Education. *International Journal of Emerging Technologies in Learning (iJET)*, *14*(18), 194. https://doi.org/10.3991/ijet.v14i18.10765

Raman, A., Ying, L. T., & Khalid, R. (2015). The Relationsip between Culture and Organizational Commitment among Chinese Primary School Teachers. *Mediterranean Journal of Social Sciences*. https://doi.org/10.5901/mjss.2015.v6n2s5p93

Raman, A., Thannimalai, R., Don, Y., & Rathakrishnan, M. (2021). A Bibliometric analysis of blended learning in Higher Education: Perception, Achievement and engagement. *International Journal of Learning Teaching and Educational Research*, *20*(6), 126–151. https://doi.org/10.26803/ijlter.20.6.7

Rahmi Ramadani, Rafiqul Umam, Abdurahman Abdurahman and Muhamad Syazali (2019). The Effect of Flipped-Problem Based Learning Model Intergarated with LMS-Google Classroom for Senior High School Students. Journal for the Education of Gifted Young Scientists, 7(2), 137-158, June 2019 e-ISSN: 2149- 360X http://dergipark.gov.tr/jegys.

Rathakrishnan, M., Raman, A., Haniffa, M. A., Mariamdaran, S. D., & Haron, A. (2018). The drill and practice application in teaching science for lower secondary students. *International Journal of Education, Psychology and Counseling*. http://repo.uum.edu.my/27063/

Rohman, F. (2017). Google Classroom: Jadikan Kelas Digital di Genggaman Anda. Bojonegoro: Pustaka Intermedia.

UMstudentsrepo (2013). Chapter 4 research design and method. Retreived from http://studentsrepo.um.edu.my/3861/4/chapter_4_research_design_and_method.pdf.

Yiran Zhao (HGSE) and Lori Breslow (MIT TLL), 2013. Literature Review on Hybrid/Blended Learning. Retrieved from
http://tll.mit.edu/sites/default/files/library/Blended_ Learning_Lit_Reveiw.pdf

Zhao, Yali & Bryant, Frances (2006). Can Teacher Technology Integration Training Alone Lead to High Levels of Technology Integration? A Qualitative Look at Teachers' Technology Integration after State Mandated Technology Training. Electronic Journal for the Integration of Technology in Education. 5.Retrived from www.researchgate.net/publication/255605663_Can_Teacher...

Zhao, Y., & Ho, A. D. (2014). Evaluating the flipped classroom in an undergraduate history course(HarvardX Research Memo).

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