AN ANALYSIS OF ONLINE MENTORING FOR MALAYSIAN NOVICE TEACHERS FOR INDUSTRIAL REVOLUTION 4.0

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ABSTRACT

This paper discusses the effectiveness of Google Educator Group (GEG) as an online support program for teachers. Education system all over the world is facing a crisis of retaining novice teachers in the system. Nonetheless, there are various support programs made available for teachers to help them cope with the challenges in their work. One of the support programs that can be found is called Google Educator Group (GEG) which is created by Google Inc. It is a community of educators who learn, share and inspire each other. Anyone could join GEG whether he or she is a principal, a school administrator, a teacher, a professor, or just someone who is interested in learning how to incorporate technology in their lesson in line with the challenges of 4th Industrial Revolution in the education system. GEG can be found all over the world and in Malaysia there are 36 GEG groups that can be found almost in every state. However, the effectiveness of GEG as a support program for the novice teachers to face the challenges of 4IR has not been proven in a study as GEG is fairly new in the world and more so in Malaysia. The research objectives of this study is to evaluate GEG as a support program in assisting novice teachers. Comments and opinions found in GEG Facebook page are screen captured and then analyzed using content analysis in order to gather data for this study. The result indicated that GEG does help teachers to improve their teaching practices especially their knowledge in integrating Google Apps into their lesson plan.

Keywords: Google Educator Group, GEG, online mentoring, online support program, novice teachers, teaching practices

1. INTRODUCTION

In the not so distant future, to simply know A, B, C or have basic reading and writing skills will not be enough to sustain one's life. Future generation or future workforce much be able to also read and write computer code in addition to be able to operate various hardware and software (Uzair, 2017). This is due to the Fourth Industrial Revolution (4IR) that is affecting and changing the world. As there is no escaping from the revolution, it is up to us to equip our students with the necessary knowledge to be able to survive in the future. Students must be taught to not just how to use the computer to do their assignment, but far more important is how to integrate the technology more into their life such as learning how to create application or write computer program. Furthermore, it is estimate that 30 percent of world population today uses social media as the platform for them to connect with others, learn about whatever they desire, and share information continuously (Schwab, 2016). Thus, the most important thing to do right now is to improve our education system by emphasizing more technology to be used in the class.

Based on the study done by Norizan and Sidra (2017), it is found that students who spend considerably a long time in using the internet or more specifically social media are proven to have a higher level of proficiency in English. This shows that 4IR is impacting the education system in which it helps students to improve their language proficiency when they are on the internet. Moreover, by using Computer Assisted Language Learning (CALL) in the teaching the students, it would help to increase learner's autonomy in their own learning, draw more attention to the lesson being taught, arouse students motivation to study, enhance the learning process, and improves retention among the students' (Norizan & Sidra, 2017).

Studies have shown that being teachers or teaching is one of the most stressful professions in the human service industry (Montgomery & Rupp, 2005; Gallup, 2014; as cited in Schonert-Reichl, 2017). When questions paper are deemed too hard for students, when the students' result are not impressive enough for the parents, or when students bully another students, the blame goes to the teachers. When technology is not utilized, teaching is conventional and online learning is minimal, teachers are blamed as well. Based on a study done by Schonert-Reichl (2017), it is found that teachers who could not manage the demands of teaching would consequently affect the students' academic achievement. This puts teachers in a stressful environment in which they are being held responsible for everything that goes wrong with the students and the pedagogical techniques applied. Teachers are expected to be able to handle every issue with the addition of being able to teach excellently in class. It is widely accepted that teachers who can attract students' attention into the lesson would be able to produce top notch students.

A lot of studies have shown that support program or mentoring program can help teachers in dealing with their work stress. In Malaysia, a lot of programs have been created in order to provide assistance to teachers in dealing with their work, for example; team teaching, buddy support system and collaborative teaching (Khairulzamri, 2012). In addition, there are a lot of online mentoring or support program that can be found on the internet. One of the newest support programs that can be found is Google Educator Group (GEG). It is a community of educators who learn, share and inspire each other. This is also the new way of mentoring teachers in line with the 4IR wave. Thus, this paper aims to study on the effectiveness of online mentoring for teachers.

2. RESEARCH QUESTIONS

Some of the issues that novice teachers are facing today is they find it hard to manage their students and create interesting lesson that could hold the students' attention. In addition, teachers do not have much time nor budget to go for training or face to face mentoring. It is important for teachers to be mentored and be given support as teachers especially the novice teachers could burn our easily. Therefore, they need a channel where they could discuss their problems and be mentored in order to reduce their stress level. Hence, the research question guiding this study is 'How effective GEG as an online support program in mentoring teachers?'

3. PURPOSE OF STUDY

Some of the reasons why teachers quit their jobs are that teachers find their job to be stressful due to being burn out with all the responsibilities and feeling dissatisfaction with the job (Chan, 2009; Wong &Li, 1995; as cited in Mann & Tang, 2012). For that reason, the research objective of this study will be focusing on the investigation on how effective GEG is as an online support program in mentoring teachers. The purpose of this study is to evaluate GEG as an online support program in assisting teachers.

4. LITERATURE REVIEW
4.1 Fourth Industrial Revolution
Three industrial revolutions has passed us in which the first occurred in 1784 when we learned to use mechanical power, such as water and steam, to help us to do farming instead of using animals like cows or buffaloes. The second industrial revolution occurred in the late 19th and early 20th century as we discovered electricity and started to develop industrial products. The third revolution occurred when we learned to combine electricity with information to create modern communication such as emails and smartphones. Today, we are going through another industrial revolution or better known as the Fourth Industrial Revolution (4IR). This latest industrial revolution is caused by all the technologies that we were developing since the middle of the last century to this day. As stated by Schwab (2016), 4IR is 'characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres'. Today, 4IR is impacting every industry in all over the world and subsequently in every aspect of our life. It changes the way we live, study, work, and communicate with each other. Now, we could easily communicate with billions other people simply through our internet connection which has become faster and through our phones which have become smarter.

As the results of the technology that we have today and the prevalence of technology in today's world, job incomes have become stagnated or decreased mainly in the high-income countries (Schwab, 2016). This is because workers with better knowledge in utilising technology or also known as 'highly skilled workers' are more in demand that workers with less knowledge and skill in using technology. Therefore, education today is aiming to produce students who have good knowledge in technology which later could guarantee them to have a job in the real world. Those who are able to adapt to the 4IR would be able to maintain their relevancies while those who do not would slowly perish.

4.2 Mentoring process
Watson (2012) states it is equally important to recruit and retain beginning teachers and at the same time making sure that the experienced teachers are also included in mentoring program. This is because effective mentoring programs for teacher would ensure that the teachers would be effective in producing students who need to be taught to be prepared for college, workforce and real world in the upcoming challenging future. Few studies have suggested that teachers who have lacked of sufficient preparation, proper instruction or reliable support have been attributed to a result of an ineffective mentoring (Flynt & Morton, 2009; Iosava, 2010 as cited in Smith, 2013). Therefore, it is important to know what is mentoring and how it can be used effectively and efficiently in helping the teachers. There are two common forms of authentic mentoring which are formal and informal. Formal mentoring is done when an organization director assign the mentoring pairs using distinct guidelines. This process is supervised and assisted in order to promote employee development (Abiddin & Hassan, 2012 as cited in Smith, 2013). On the other hand, informal mentoring develops naturally without the assistance of a mentoring director. In this situation, one would look for another person whom he or she would feel most comfortable to be one's mentor. In this study, the focus of this study is an informal mentoring practices.

4.3 Online mentoring
In the education sector, it is not yet common to see online mentoring for teachers though online mentoring is quite predominant in the business sector. For example, it is used to address many organizational goals such as "succession planning, training, strengthening of the corporate culture, and management development" (Zey, 2011 as cited in Moran, 2014). In addition, other well-known companies that are using online mentoring companies are Convergys, Bell Atlantic, Coca Cola, Nabisco, Intel, and Procter & Gamble (Frey, 2011, as cited in Moran, 2014). Looking at all these giant companies that are using online mentoring shows that online mentoring does work in helping the young workers to adapt better in their workplace. From the education perspective, Richardson (2006, as cited in Moran, 2014) states that through the introduction of online learning communities, it has enabled the teachers to go out of seclusion and into a collaborative world. As a result, this has created a "24/7" learning environment for teachers to access various knowledge that could be applied into the classroom for their own students.

Moreover, Davis and Resta, 2002, as cited in Gentry, 2011) state there are few advantages of electronic mentoring (E-mentoring) or online learning which are:
(a) The immediate needs of the mentee can be supported,
(b) Mentors can be assigned based on their expertise rather than their availability (to physically interact with their mentees)
(c) Both mentor and mentee do not need to leave the classroom
(d) It helps the learning integration

4.4 Google Educator Group (GEG)

Today, being literate is no longer just being able to write one's name but it has advanced to the need of one's to be competent in accessing, understanding, using and creating information through technology (Noveanu,2010 as cited in Adams,2016). Therefore, it is important for teachers to improve their knowledge in using latest technology in order to be able to produce literate students who can manage in today's world. For that reason, Google Educator Group (GEG) is one of the support program for teachers to learn how to integrate technology in their classroom. GEG is a platform for educators to collaborate with another educators with the aim of utilizing technology into schools, classrooms, and communities around the world. It takes place both in an online and offline platform. Online GEG platform is a space for educators to discuss and learn about one another while offline GEG platform is a local event usually a workshop or seminar run by volunteers or known as GEG leader for the educators to learn and share face to face. It is a place to meet people who have similar mind-set and make friends in a larger professional community. By participating in GEG, it helps educators to share creative ideas, for example how to use web-enabled learning in the classroom, and assist each other in dealing with students. Furthermore, GEG is open to everyone who is interested to help people learn in using Google products that can be used in the education. However, each group is independent from the Google Inc. which means that the workshop or seminar is not sponsored by Google Inc. A GEG leader may also cover about other technology to use in classroom or other issues pertaining to education because the theme or topic to be discussed during GEG event is decided by the GEG Leader if each respective group. Most importantly, GEG is free for all and would always be free for all. In Malaysia. GEG was first launched on 16 May 2014. As of today, there are 36 GEGs all over this country. To sum up, 'GEG Malaysia is a community of Malaysia-based educators who learn, share, inspire, and empower each other, both classroom and beyond' (https://www.facebook.com/gegmalaysia/).

5 METHODOLOGY

Data for this study is collected through content analysis. In order to evaluate the effectiveness of GEG as an online support program for teachers, it is very important to observe the comments given by teachers in GEG Malaysia Facebook page from the time when GEG was introduced in this country which was in the year 2014. This is done to see whether GEG has been useful and effective in providing necessary supports and feedbacks to the participating teachers. The comments were collected since the beginning of GEG Malaysia Facebook Page which was from 2014 until 14th November 2017. Next, the comments were analysed and divided into two (2) categories which are positive and negative.

6 FINDINGS AND DISCUSSION

RQ: How effective GEG as an online support program in mentoring teachers?

The first research question attempts to find out the whether GEG is effective or useful as online support program in guiding the teachers. Therefore, in order to answer this question, comments of GEG Facebook Page Malaysia were collected and analysed. The results are presented in the tables below.

Table 1: Total number of comments found from GEG Facebook page

Comments	88 (100%)
Related	74 (84%)
Unrelated	14 (16%)

Out of all the online comments found (88), 74 comments or 84% were related to the purpose of this study while the other 14 comments (16%) were unrelated to the purpose of this study.

Table 2: Analysis of the related comments

Related Comments	74 (84%)
Positive	74 (100%)
Negative	0 (0%)

All of the related comments were analysed and divided into two (2) categories which are Positive and Negative and it was found that all of the related comments (74) were positive comments.

Table 3: Analysis of the positive comments

Positive Comments	74 (100%)
Compliment	60 (81%)
Showing interest to join	14 (19%)

After Positive Comments were analysed, it was found that 60 comments (81%) were complimenting or praising GEG as a good platform for them to learn about technology. In addition, another 14 comments (19%) were showing interest to join GEG for the first time or again for the second time. Below are few examples of 'Compliment' and 'Showing interest to join':

Positive comments		
Compliment	Example 1	Hi Puan Normie! Thank you for sharing great info on how to make use of GoogleApps from the chrome webstore. It helps us a lot to optimise the use of VLEFrog. (Comment 36, 1 November 2015)
	Example 2	Bringing innovative teacher together, in one community with the same goal, to enhance and uplift the knowledge power of our pupils, thanks for the opportunities given Google Malaysia and all the GEG trainers. (Comment 47, 19 March 2016)
	Example 3	Very interesting! Can' wait to continue online learning at GEG. A lot of knowledge gained that can be used for teaching and learning in this 21st century.The use of Google Apps can increase the students' interest to learn and also ease the teachers' burden. (Comment 61, 19 March 2016)
	Example 4	Thanks for creating opportunities for teachers, GEG. (Comment 14, 21 November 2014)
	Example 5	Go,go,go, its worth going..all educators should take this opportunity. You will never regret. (Comment 27, 22 March 2015)
	Example 6	The best knowledge sharing in moving towards 21st century teaching in learning. Moving towards excellence in national education together with 7th Education Development Plan in usage of ICT. Thank you for choosing me to join in this meaningful workshop. Well done Google! (Comment 48, 19 March 2016)
	Example 7	Very satisfied. The seminar is full with information which is very useful for all educators.Could be applied in teaching and learning. It is not a regret to join this seminar. (Comment 50,19 March 2016)
	Example 8	Seminar 3: Pemangkin Pemikiran Pendidik Abad 21. One great profesional development program. Congratulations GEG. (Comment 58,19 March 2016)
	Example 9	Very interesting and beneficial fo us, the teachers. (Comment 50,19 March 2016)
	Example 10	For an average teacher like me, this is amazing even helps in varying the teaching and learning teachniques inlign with time..great teaching and learning..excellent students. (Comment 74,19 March 2016)
Showing interest to join	Example 1	'How to register?' (Comment 39, 12 November 2015)
	Example 2	'Where to find the detail?' (Comment 42, 8 January 2016)
	Example 3	'When are you coming to Seremban?" (Comment 21, 5 February 2015)

In conclusion, GEG as an online support program in mentoring teachers is beneficial as it helps teachers to gain knowledge on how to use various technology to help them in preparing their lesson. From the data gathered, it is found that GEG is very effective as an online support program in mentoring teachers as 81% of all the comments are complimenting GEG. In conclusion, all of the participants who have joined GEG and leaving comments on its Facebook page found various benefits in participating in this program. In terms of online mentoring, only a few comments are showed that it was positive. For example, '*Very interesting! Can' wait to continue online learning at GEG. A lot of knowledge gained that can be used for teaching and learning in this 21st century.The use of Google Apps can increase the students' interest to learn and also ease the teachers' burden (Comment 61, 19 March 2016)*.

The lack of comments in this topic could be due to the fact that online mentoring is new and it is an area that has not been exploit yet by teachers in Malaysia. However, with the fourth industrial revolution challenges and expectation, novice teachers must grab the opportunity to be coached, mentored, and motivated via online and the usage of technology should be used at it most capability.

The online mentoring fit the needs of the future teachers and future classroom management as teachers do not to leave their classes and schools to be trained and retrained. It is also an effective platform if utilised considerably and a good way to reduce

the teachers' burn out as they will meet teachers with similar problems, similar stress level and engage socially online with others.

8. CONCLUSION

In conclusion the study found that online mentoring has helped teachers in matters related to their work scope. All of the related comments found were complimenting GEG as a good platform for teachers to gain knowledge. However, there were only eighty-eight (88) comments found though GEG Malaysia Facebook Page has been active for three years. This could be due to the fact that online mentoring is still new in Malaysia and teachers are still not used to leave their comment or opinions on the internet.However, teachers who left the comments on GEG Facebook page are found to be praising GEG as it has helped them in reducing work stress, teaching them how to integrate more technology in class, and helping them to create engaging lesson plan. Thus, it can be concluded that teachers gain a lot of benefits in terms of teaching and planning their lesson from participating in GEG. From the findings, online mentoring does bring a lot of advantages to teachers in assisting them. This study provided an insight of how GEG as a new support program for teachers to learn more about integrating technology in their classroom and embrace the challenges of 4IR in a fun way. It is hoped that more people would be aware that online mentoring is beneficial for teachers to gain new knowledge about integrating technology in their classroom. It is recommended for future research to look at how GEG as an online mentoring program bring benefits not just for the novice but for all teachers.

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