THE USAGE OF GOOGLE APPS FOR EDUCATION (GAFE): HIGHER EDUCATION, MALAYSIA

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Abstract
The aim of this research is to study on Google Apps for Education (GAFE) in higher education among Malaysian students. This paper provide background of GAFE which analyzing them as information tools. It is important to identify the issues and solutions of GAFE that being implement in the schools. Thus, with some research, this can help in the development of GAFE among Malaysian students in higher education where everyone able to use and apply it in the future.
Keywords: education, Google, Google Apps for Education (GAFE), higher education, usage

INTRODUCTION

Google is the search engine that allow users to get information that they are looking for. It is a model of search engine where the structure exist in hypertext. Usually the web search give fast respond to the search result with some advanced searching features such as audio and video besides Portable Document Format (PDF). Google also known as Google Apps Engine (GAE) where it acts as a Platform-as-a-Service (PaaS). It allow users to create and run apps on Google's infrastructure. According Kevin Gibbs, Google Apps Engine (GAE) allow people to write server to it which save a lot of money on the budgets for the good quality of maintenance.

In addition, it also enable users to run web applications on Google infrastructure. This is because this web is user friendly where it is easy to build, to maintain and to scale the data storage and also the traffic. Google also makes some limitation on the access of application of members in the organization. The users need to sign up for free account as to develop and publish the application.

According to Google (2016), Google Apps for Education (GAFE) is a free tool that use by teachers and students. It gives benefits for them where the tools can be used at anytime, anywhere and on any device. It also use technology Web 2.0 where it is a set of communication and contact, collaboration and management tools.

In communication and contact, it consists of Gmail, Google Talk, Google Calendar. For collaboration, it includes Google Docs, Google Video, Google Sites. In management tools also have iGoogle and Extendible API. Google Apps offers embedded features that promote collaboration and exchange of information and also integration of tools (Ferreira,2014).

ISSUES

According to the Google (2013), they stated that it has been used by 10 million Malaysian students, teachers and parents for educational design. However, it does not fully used by them. This is because:

1. Teachers are not aware with the existence   and   recommendation of government
2. Most of them do not have basic in using educational technology
3. Lack of utilities provided
4. Students unable to join force after graduation
5. Students face with lack of skills
6. Demanding of budget
7. University use online education
8. Lack of cloud engineer

RESEARCH QUESTIONS

In this research, we decided to use a mixed-method approach with qualitative and quantitative method. This research was focused on:

Q1. What is the usage of Google Apps for Education   (GAFE)among Malaysian students in higher   education?
Q2. How to implement the usage of Google Apps for   Education (GAFE) among Malaysian students in higher education?

RESEARCH OBJECTIVES

With all attention to the questions, this bring the research to the objectives where :

1. To identify the usage of Google   Apps for   Education (GAFE) among Malaysian students in higher education.
2. To identify the implementation of Google   Apps for   Education (GAFE) among Malaysian students in   higher education.

LITERATURE REVIEW AND PROPOSED FRAMEWORK

According to Wang and Jin (2010), Google helps educators in teaching where it can enhanced the excellence of educating. Thompson (2008) identified that it also provide online tools for productivity and collaboration. By having this application, it save a lot of time and cost as it is easy to use and understand by people.

Google Apps divided into three parts which are communication and contact, collaboration and management tools.

A. Communication and Contact

Table 1: Communication and Contacts of GAFE

GOOGLE APPS	USAGE
Gmail	• Able to integrate with E-mail Talk Google in window browser • Able to communicate using Quick Contacts by text, video and voice. • Able to integrate with iGoogle start page
Google Talk	• Able to do phone calls and instant messaging service • Able to support all contact from Google Talk and Google Gmail • Able to do real-time chat, free calls line PC by PC, sent voice mails to Offline contact and to transfer and receive documents
Google Calendar	• Allow user to put appointment • Invite account users to join activity

B. Collaboration

Collaboration require everyone to have skills on written communication with online environment (Havard et al.,2008). Thompson and Ku (2006) also stated that by having this, it can help students to improve their skills level.

Table 2: Collaboration

GOOGLE APPS	USAGE
Google Docs	• Allow user to create, edit and obtain documents • Supports all types of format such as PDF • Allow user to view and change documents at same time

	• Contain chat window which enable to do discussion
Google Video	• User can select video from other website • Allow in sharing video resources
Google Sites	• Able to produce embedded documents, forms, calendars, presentation documents, pictures and Google searches • Able to decide template, style and appearance of the sites • Allow in integrating with others to improve Google Apps

C. Management Tools

Productivity management is necessary in order to perform task management. Many company have to work hard to avoid downturn to be happened. By having this, it help people to organize their material in proper way.

Table 3: Management tools

GOOGLE APPS	USAGE
iGoogle	• Allow user to customize and integrate various type of information sources • Integrated multiple services
Extensible API (Application Programming Interface)	• Able to create tools that they need and integrated into Google Apps

Other than that, Google Apps also need some way to be implement in Malaysia. Google Apps for Education (GAFE) stated it is the most useful among the other application where people can get experience and receive support. With this implementation, it could bring to the new situation where the development of GAFE can be improved and growth.

According to Robertson (2013) highlight that teachers need to take part in any new standard that has been introduced. Teachers can help students to understand the instruction and use the knowledge.Parents also need some education on the use of GAFE as they are get paranoid with advancement of technology.

Other than that, implementation strategies also exists for K-12 education besides for higher education. Therefore, Pettit and KuKulska-Hulme (2011) concludes that it is more obvious for students to access information as evidence of innovative implementation of technology.In other words, by discovering the existence and usage of the Google Apps for Education (GAFE) and implementation of Google Apps for Education (GAFE), it found that Google Apps for Education (GAFE) already existed in year 2013 by recommendation from Malaysian government. It shows that existence of GAFE and the application of it is not fully used by Malaysian students and teachers as not all people aware of it. With the technology in education, it helps for teachers in improving the educations. It also eliminates all the problems an integrated solution where students can access it at anytime and anywhere without losing of data.

However, GAFE seems to be new to education in Malaysia and some actions need to be taken such as profesional are needed to teach and handle the usage of GAFE. Other than that, tools also must be aggregated by teachers and students. There also must create program to give awareness on this cloud computing software.
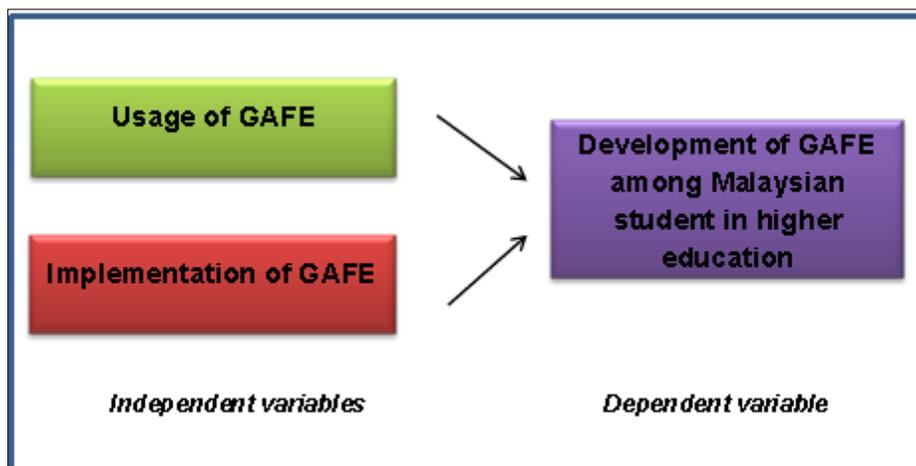

Figure 1. Framework of GAFE

From the relationship, it can be assumed that the usage and the implementation of GAFE which can brings to development of GAFE among Malaysian students in higher education. According to Ferreira (2014), framework offers real support for distance learning environments. Hence, both usage and implementation of GAFE are elements for independent variables and development of GAFE among Malaysian students in higher education. The relationship between the dependent and independent variables

can be affected, positively or negatively by the number of other factors that may not focus in the study.

CONCLUSIONS

This literature review has focused on the existence of Google Apps for Education (GAFE) was use by the Malaysian students in higher education. Two section were discussed in the literature review which are the usage of the Google Apps for education (GAFE) and the implementation of Google Apps for education (GAFE). These two sections were well explained in details so that reader can understand the elements that give effect to the results. At the last section of this chapter two, the researcher explained about research framework that will be applied for this research study and discussion on how it will stating out the relationship between dependent and independent variable. The next page will move on to chapter three in which will discuss the research methodology used in this research study.

REFERENCES

Agcaoili, K. (2012). Google Apps: an opportunity to   collaborate. 1-113.

Ferreira, J. M. (2014). Flipped classrooms: from concept to   reality using Google Apps. *11th International Conference on Remote   Engineering   and   Virtual   instrumentation   (REV)*, 204-208.

Jin, Y. W. (2010). The application of SaaS model in   network   education :   take Google Apps for   example.   *International Conference on Education Technology a   nd Computer(ICETC)*, 191-194.

Robertson, C. (2013). Using a cloud-based   computing   environment   to   support teacher training on common   core implementation. *TechTrends*, 57-60.F