

The New Digital Age: Reshaping People, Nation and Business through Flipped Arena

Salisu Idayat Omolara, Panadda Auyphorn, Abdul Rahman Ahmad Dahlan

Abstract—Flipped Arena can be seen as communication technique that consists of two parts: interactive learning activities, and direct computer-based individual instruction outside the four walls. The aim of this study to look into the flip arena where people can learn, in many area, where the old or physically challenge people can be able gain knowledge and speak freely. On the other hand introducing the rural area into the future. This research will provides an inclusive survey of previous and current research of the flipped classroom and conceptual solution model based on business model canvas (BMC).

Index Terms— BMC, Flipped Arena, New Digital Age, Technology

I. INTRODUCTION

The digital age is about the encroachment in technology in the world of today, and the way it affect people's daily life is a greater thing, as well as businesses, not to forget the nations at wide. Digital age reshaping people, business and nation is a topic that cannot be ended in one paper because of the wide moving rate of technology. With glaring examples and brilliant analysis, it shows how the internet and other communications technologies will empower individuals and transform the way nations and businesses operate. How will different societies make trade-offs involving privacy, freedom, control, security, and the relationship between the physical and virtual worlds? This realistic but deeply optimistic book provides the guideposts. It's both profoundly wise and wondrously readable.

In corollary to this many of us in the world where technology is advance rely heavily on it to the extent that it dictates the routines in general which are helped by the internet and our mobile/smart devices indeed, taking for example what many do with the laptops, it more of an addition than the ordinary, as they can go by their own thinking anymore it. And we are not the only ones who are plugging in. We are also increasingly hooking up our various man-made systems (such as our infrastructural systems and financial systems) to the internet as well. Given how radically digital technology has transformed our lives, it is incredible to think how recently all of this change has occurred; for, indeed, all of this technology has come upon us entirely in the past 15 to 20 years. This is significant because it reminds us that the age of connectivity is but in its beginning, and that most of the changes are yet to come.

This is true for us here in the developed world, but is even more so the case for those living in the developing world,

where almost 5 billion people are expected to go from no connectivity to full connectivity within the next 20 years. While it may well be the case that the overall impact of the connectivity revolution will be enormously beneficial, we would be fool to think that the impact will be none but positive. With forces such as criminals, rebel groups, terrorists and rogue states prepared to take advantage of the new technology, the connectivity revolution poses some very serious challenges as well. Google executive Eric Schmidt and U.S. policy and media expert Jared Cohen are particularly well-placed to assess how all of the upcoming changes will play out, and in their book "The New Digital Age: Reshaping the Future of People, Nations, and Business" the two let us in on their ruminations and prognostications.

In spite of the talk around the innovative idea of flipped Arena as a rousing new subject matter an advancement in the educational research, there is a lack of agreement on what precisely flipped Arena can be called, as there is little research about the topic as it is a new idea. That is why to make a clear distinction of the subject matter, it of necessity to look at the definition of flipped Arena. According to Lage et al (2000), flipped Arena is regarded as "Overturning the Arena means the traditional way of disseminating knowledge will be revised to bringing the Arena to you instead of you going to the location. While this explanation captures the rationale for using the terminology inverted or flipped, it does not adequately represent the practice of what researchers are calling the flipped classroom. This definition would imply that the flipped Arena merely represents a re-ordering of Arena and at-home activities. Most research on the flipped Arena employs group-based interactive learning activities inside the classroom, citing student-centered learning theories based on the works. The exact nature of these activities varies widely between studies. Similarly, there is wide variation in what is being assigned as "homework". The flipped Arena label is most often assigned to courses that use activities made up of asynchronous web-based video lectures and closed-ended problems or quizzes. In many traditional communication or learning, this represents all the instruction people ever get. Thus, the flipped Arena actually represents an expansion of the curriculum, rather than a mere re-arrangement of activities. This chapter discusses the flipped classroom, its importance and challenges teachers or people may face in the flipped classroom.

Flipped Arena can also be seen as communication technique that consists of two parts: interactive learning activities, and direct computer-based individual instruction

outside the four walls. We restrict this definition to exclude designs that do not employ videos as an outside of the Arena activity. While a broad conception of the flipped Arena may be useful, definitions that become too broad suggest that assigning reading outside of class and having discussions in class constitutes the flipped classroom. The chapter also sheds light on research objective and purpose and research questions. The chapter lastly presents the scope that will be covered in this study.

A. Background of the Study

Communication, knowledge and learning have rapidly shifted from traditional environment to making people's active partners in interaction. People have found a novel approach to move knowledge from one person or rather one way centeredness to cross-directional centeredness. Flipped Arena called blended learning is a new method introduced. Through flipped classroom, people are relieved of four walls anxiety or shyness in participation. Flipped Arena is defined variously in realm. To Tucker (2012), flipped Arena is the use of modern technology to invert traditional communication or teaching environment through online lecture delivery to people as homework for example and opening up interactive learning. In flipped Arena, lectures will be recorded his/her lesson using video, mp3 or any available recording devices and post the lecture to the people online for them to respond to it. This method is very interesting and fruitful. One of its advantages is that, it enhances individual participation to suggest series of opinions. Another benefit of it, is that, it is a constructive method of knowledge sharing, where people will be given chance to express and structure their learning. It also improves individual's creativity.

These Flipped Learning leaders also distinguish between a Flipped Arena and Flipped Learning. These terms are not interchangeable. Flipping a class can, but does not necessarily, lead to Flipped Learning. Many people may already flip their lectures by having people read text outside of the four walls, watch supplemental videos, or solve additional problems, but to engage in Flipped Learning, speakers that educate must incorporate the following four pillars into their practice. The pillars are flexible environment, learning culture, intentional content and professionalism.

B. Statement Problem

There is a major advancement in the level of technology and it is not only affecting one part of life it is affecting the globe in general and information dissemination is not an exemption. Therefore flipping and inverting is a technology to introduce in the Arena even though some people have been using it before by introducing YouTube video to buttress their explanation in when presenting. Still it is not enough according to the advancement in the technology as at now, because many rural area want to be knowledgeable in different aspect but they don't have the opportunity. In most instances where the Arena flip is used, the speakers, or professors explicitly state that they chose to use this format in order to give people a chance to actively engage, in the discussion in order not to lose focus. Instead of looking at the help it will give to them, flip Arena helps the people to be practical enough, it may present theoretical problems for Arena learning. So it is not known the readiness of the

lecturer about implement full flip Arena as medium of community in the classroom. It seems this situation could pose a significant problem for professors and people alike.

C. Purpose of Study

This study aim at looking into the flip arena concept where people can learn, in many areas, where the old or physically challenge people can gain knowledge and speak freely. At the same time, introducing the rural people into new digital age via flip arena. Based on this major purpose, the following research objectives are written.

D. Research Objective

The objectives of this study are:

- 1) To investigate the usefulness of the flipped Arena
- 2) To investigate the perception towards flipped Arena
- 3) To look into the advantages of it to the physically challenge as well as the rural area and also explore on how it can be implemented to their advantage

E. Significance of Study

It is expected that, the current study will benefit in terms of literature review related to flipped classroom. The study will also provide solution for the communicational system and community to know what contents of knowledge should be delivered and how they should be delivered to the people because they are the end results of knowledge.

Flipped Learning people continually think about how they can use the Flipped Learning model to help people develop conceptual understanding, as well as procedural fluency. They determine what they need to teach and what materials people should explore on their own. Speaker or lecturer use Intentional Content to maximize Arena time in order to adopt methods of student-centered, active learning strategies, depending on level of education and subject matter.

F. Scope of Study

This study will be limited to the rural area and the physical challenge people.

II. LITERATURE REVIEW

The previous studies in flipped Arena starting with the definition of technology, the beginnings and benefits of technology in education. Also stated in this chapter various definition of flipped Arena and how it affected people in addition to what are the lecturer perceptive when it comes to using it as a medium for studying.

This research will provides an inclusive survey of previous and current research of the flipped classroom, the way it is used and implemented in the classroom. There are different types of studies that have been done, it comes in different magnitudes. Among these are the in-class and out-of-class activities, the measures used to evaluate the study, and methodological characteristics for each study. Survey shows that most studies conducted to date explore people perceptions and use single-group study designs. Reports of people perceptions of the flipped Arena are mixed responses, but when it comes to general evaluation it is positive. People tend to prefer in-person lectures to video lectures, but prefer interactive Arena activities over lectures. Subjective evidence suggests that people learning is

improved for the flipped compared to traditional classroom. However talking about the people learning responses to the usage there is little outcome.

A. Increased Efficiency in Our Daily Routines

Beginning on the home-front, the people argue that the new digital age promises to usher in a world of impressive efficiencies. Take house chores, for example. Technology will not only help with the planning of these domestic necessities (loc. 356), but will also perform many of them for us. As the authors explain, “the average American consumer will find it affordable to own a handful of different multipurpose robots fairly soon. The technology in iRobot’s Roomba vacuum cleaner, the progenitor of this field of consumer ‘home’ robots (first introduced in 2002), will only become more sophisticated and multipurpose in time. Future varieties of home robots should be able to handle other household duties, electrical work and even plumbing issues with relative ease” (loc. 380). Moving beyond house-chores, digital technology will also help us with virtually all of the mundane activities that we are required to plan out and do on a day to day basis (such as grocery shopping, powering up our cars and various devices etc). Much of this will be the result of the ubiquitous presence of smart devices that will all be integrated with one another, and with which we will interact through sophisticated voice-recognition software, and even thought-controlled motion technology (both of which are advancing quickly [loc. 383-87, 400]). As the authors explain, “centralizing the many moving parts of one’s life into an easy-to-use, almost intuitive system of information management and decision making will give our interactions with technology an effortless feel. these systems will free us of many small burdens including errands, to-do-lists and assorted ‘monitoring’ tasks that today add stress and chip away at our mental focus throughout the day” (loc. 359). When it comes to transportation, self-driving cars (which are already legal in 2 states [loc. 473]) will take care of much of this for us, leaving us free to work (or play) at other things (loc. 473). While the prospect of self-driving cars is certainly exciting for those of us living and working in the city, the biggest impact of these vehicles will be on the transport and trucking industry. For example, the authors ask us to “imagine the possibilities for long-haul truck-driving. Rather than testing the biological limits of human drivers with thirty-hour trips, the computer can take over the primary responsibility and drive the truck for stretches as the driver rests” (loc. 478).

B. Leisure and Entertainment

Beyond offering us efficiency in our day to day routines, the new digital age also promises us many new possibilities in the area of leisure and entertainment. To begin with, the authors assure us that we will be presented us with an abundant supply of music and video content at very low cost (if not free), and with the content providers duly paid for their output. As the authors explain, “contemporary services like Spotify, which offers a large catalogue of live-streaming music for free, give us a sense of what the future will look like: an endless amount of content, available anytime, on almost any device, and at little or no cost to users, with copyrights and revenue streams preserved” (loc. 526). (Just how revenue streams will be preserved where entertainment is offered for free is not discuss nor do we address how the

issue of pirating might play out two glaring omissions is that it meant to explore the future of the digital age).

C. Technology in knowledge

As learning is one of the most important factor that effect each country either positively or negatively. Thus, understanding how can improve the learning and communication system is one of the most important research era in recent years. The learning system of any countries performs few main tasks such as enhancing the higher communication, equally educating people in the society as well as helping social development.

Information and Communication Technology (ICT) plays great role in imparting and enhancing learning in modern scenario. The ICT changed the way of imparting knowledge with more advanced skills that can be used for communicating and learning purpose [16].

Before entering technology in learning, there were several learning, when the new ways appears it doesn’t replace the way that came before but coexist and complete it, as technology when merged with communication coexisted with all methods and each of them a role to play and all use accordance with requirements of the learning situation.

D. Definition of Technology

The term ‘Technology’ is wide, everyone has own way of understanding the meaning of technology .Technology is not just owning tools and devices, but it is ideas to solve problems. Technology is human activity with aid of tools and procedures to achieve the aims and practical purposes. Technology is a body of knowledge devoted to creating tools, processing actions and extracting of materials [21].

E. Features and benefits of using technology in learning

Preparing people for lifelong learning requires new approaches in that incorporate using technology and make it as an important part in people’s life to inspire them to creativity, innovation and development.

The flexibility in technology gives people opportunities to learn what they want at any time in any were, they can conduct their researches and assignments through short period, in the past people have to go out get new information from Google or attend seminars and scientific conferences .information nowadays is easily to get from the internet that make people more excited to learning by offering several platforms of learning such as video and visuals [28].

F. Flipped Arena

The reasons for emergence flipped Arena are rising costs of learning in general and also the courses which provide on line to people, that open discussions of change the current Arena to make people dispense spend these costs also make the learning process more effective [2].

There are blended definitions for flipped arena [12] defined it to decreasing direct instruction and focus on individual teaching to measure the understanding for every people with providing technology in Arena and offer the instructional material online to people.

Bergman, overmyer, Wilie (2013) provide traditional definition of flipped Arena which is replace the direct instruction with videos and people can work individually with teacher, it called flipped Arena because the homework which was conducted at home in this model conducts in

class and lecture which was provided via speaker at class became by the internet with videos downloaded by teacher.

Roshan (2012) is a speaker from Bullis school in Maryland, she has experience with her people about flipped classroom, he said the lecture became revolve around what the people need and they became more confidence because they able to work their brains to solve their problems, also by having the chances to ask and listen to their Arena questions

And answers, people can deal with the materials together then they will avoid confusing.

Kanti (2014) stated varies opinions towards flipped Arena by people. One of them said "I like this way because it give us opportunity to have idea about the lesson before class time. Thus the lesson will be more useful .another people said "I love the video as production for the lecture and I feel this method will benefits my country".

Zhao, Andrew Ho (2014) extracted from people responses to the questioner their perceptions towards flipped Arena which were positive responses, they stated that this method allowed them to self

pace their learning ,and they can learn any time ,in addition videos that teachers uploaded online are short and can replay them many times ,also in video can include varies materials by brief every topic and provide the main points that's allowed them to focus on the basis discussion with their classmates.

1) The impact of flipped Arena on people

By the availability independents learning in the flipped classroom, people receive variety of knowledge and become able to explore and apply the concepts which is related to their subjects (Marowe, 2012).

Flipped learning environment with groups makes people more enjoyable than working individually to solve their problems in the traditional Arena [27].

Compering between traditional approaches in learning which people were less engaged and involved with class activities while people in flipped learning environment allowed to utilize various instructional strategies by improve their class time. Flipped Arena allows people to learn in unique style that's encourages people engagement by different activities which are active thinking skills to be more engaging. In addition it was clear that flipped learning environment paper people to the work environment.

Some studies shown that the flipped Arena not always have significant influence on student's engagement and achievements [18].

The researchers conducted multiple studies about flipped Arena and its effect on student's academic level inside Arena and their deal with the materials that the speaker put on line.

This section review three studies pertaining to the flipped learning model, the results of these show what others doing based on what practitioners described.

The first review about implementing a flipped Arena: An instructional module, this research done by (Shimamoto, 2012), in USA an instructional module was created to provide interested people with a comprehensive online resource to begin flipping their classes or lectures.

The study conducted on teachers in grades 7 through 12 at a private, college preparatory institution in Honolulu consisting of 10 teachers. All the teachers were college

educated and had a minimum of five years teaching experience. No limitations were placed on age, gender or technical skill, though all were proficient using the internet for general web browsing and to access email.

To find out the most suitable approach for the courses, the research use three different learning strategies implied on participants. The instructional strategies covered in the module were the ARCS model of motivation, problem based learning method and collaborative learning approach.

The researcher used HTML-based web page to deliver the instructional module to the teachers. Videos were displayed through an embedded YouTube player dispersed throughout the module to give more details and information. Moreover, Screencast-o- matic and Screener were used to capture and deliver all screencast tutorials for participants. For collecting data from participants, the survey was sent by using Google Forms. Quantitative assessments were conducted using Likert scales to measure the effect of the module on the technical proficiency of the participants as well as to gauge their understanding of the conceptual and Pedagogical processes. Open-ended surveys provided qualitative data to determine the module's impact on the feelings and attitudes of the participants toward implementing the learned method. Demographic data was limited to the number of years teaching, grades taught and subjects taught. No additional personal information was collected. The result of the study stated that almost all the participants indicated an improved knowledge of flipped classrooms upon completion of the module except one of them. Average improvement was 1.6 points on a five point Likert scale. Scale options ranged from 1-"No Knowledge" to 5-"Highly Knowledgeable." In addition, knowledge of the hardware and software needed to implement a flipped Arena improved for all ten participants. Confidence in using these same items also improved for eight of the ten participants. For the remaining participants, confidence levels were left unchanged. On average, there was a general increase in both in knowledge of and confidence in using the hardware and software introduced.

Assessments of the learning strategies showed the greatest amount of improvement overall, particularly for the ARCS model of motivation. Participants, on average, showed a gain of 1.9 points in their knowledge of the model after completing the instruction. This compares to more modest gains of 1.2 points for problem based learning (PBL) and 0.6 points for collaborative learning .Nine of ten participants indicated confidence levels of moderate or greater for each of the three strategies.

Responses measuring the overall effectiveness of the instructional module showed an average rating of 4.5 points on a five point Likert scale, indicating a high level of success with this audience by using this module in teaching and learning process.

Phillips, Cynthia, Trainor, Joseph (2014) conducted research about millennial people and the flipped classroom, they conducted a survey of accounting majors at an AACSB accredited metropolitan university located in the Northeast. There were two purpose of this study, the first one is to examine the flipped Arena approach to teaching accounting to the millennial generation of people and to explore accounting people' attitudes towards this approach.

The email addresses of juniors, seniors, and graduate accounting majors were obtained and people were contacted by email and directed to the survey site. About two weeks

after the initial contact, follow-up requests were sent in total 125 responses were received from 741 accounting majors contacted, resulting an approximate response rate of 17% a copy of the survey instrument is available from the authors.

The survey collected demographic information about the participants and asked ten questions about the people's experiences in their accounting courses and attitudes toward the flipped classroom. The demographic information revealed that the participants were closely split in gender with 48% female participants and 52% male participants. Most of the participants were graduate people 83/125 (66%). The number of accounting courses completed by the participants was quite high, with 64% of all participants reporting having completed six or more accounting courses.

The survey questions focus on three areas. The first area is the people's perceptions about their pre and post accounting course delivery. The second area they focus on is the people's experience and attitudes towards the flipped classroom. Finally, the people should offer suggestion to improve learning in their accounting courses.

The survey indicated that millennial accounting people are exposed mostly to a lecture-based paradigm in their accounting courses rather than a more active learning approach as espoused by the flipped Arena advocates. People appear to be open to new technologies in the Arena and express a desire for professors to provide more hands-on and practical applications of the accounting content covered in their courses. In addition, millennial accounting people in the survey appear to value video lectures as a source for content delivery. This result may be indicative of the generation's familiarity and enjoyment of being provided with a variety of visual inputs. Overall, the results of the survey suggest that the flipped Arena maybe an effective method of engaging future accounting people from the millennial generation.

The last review from the research of (Kenna, 2014) with title "A study of the effect of the flipped Arena on people self-efficacy" the design was a quasi-experimental design because the sampling was not randomized and used non-equivalent groups.

To make this will start from the educational system, this idea is coming from the Flipped classroom. The participants were 22 high school people enrolled in a private school in the upper Midwest. The sample was made up of 21 twelfth grade people with one eleventh grade people enrolled in physics. People were split between two classes, a traditional and a flipped Arena taught by the same speaker who is also the researcher. The sample included 13 male (59%) and 9 female (41%) People which was similar to that of the school with a total of 306 people with 51.6 % of the people body as male and 48.4% female.

The Self-Efficacy Scale survey is designed to identify people's beliefs about their perceived self-efficacy of their learning and to assess their views about a traditional Arena teaching model compared to the flipped classroom.

The comparison group (N=11, 64% male; 36% female) was in the morning and was taught as a traditional classroom. Their home work was assigned after lecture, at the end of class time and completed at home on their own time. The timeframe for this study was ten weeks.

The intervention group (N=11, 55% male; 45% female) was in the afternoon, this model of the flipped classroom, the lessons were podcasts of each section lecture, The

activities, labs, and homework were done in class at their own pace.

After the ten weeks of units concluded, both groups were given the post- intervention survey to identify the people's view on their perceived self- efficacy while learning in their respective teaching models.

The results of this survey showed that Males identified a decrease in both the comparison group and the intervention group. And both the intervention group and comparison group of females indicated an increase in self-efficacy.

The comparison group had a pre-intervention mean score of 22.73 and a post-intervention mean score of 22.36 with a mean difference of -0.37. The intervention group had a pre-intervention mean score of 23.91 and a Post-intervention score of 24.18 with a mean difference of 0.27. The standardized effect size, d , and was .54 indicating a medium effect.

When isolating gender of each group, the mean score of the males in the comparison group had a pre-intervention score of 23.14 and a post- intervention mean score of 22.43 with a mean difference of -0.71.

The mean score of the males in the intervention group had a pre- intervention score of 24.50 and a post-intervention mean score of 24.33 with a mean difference of -0.17. The standardized effect size indexed, was .61 indicating a medium effect.

The mean score of females in the comparison group had a pre intervention score of 22.00 and a post-intervention score of 22.25 with a mean difference of 0.25. The mean score of females in the intervention group had a pre-intervention score of 23.20 and a post-intervention score of 24.00 with a mean difference of 0.80. The standardized effect size index, d , was .41 indicating a small effect.

III. FINDING FROM LITERATURE REVIEW

This study describes in details the research methodology that will be used in order to achieve the three research objectives and answer four research questions previously mentioned. This part provides detailed description of the research design, research population and sample, sampling procedure, and instrumentation. Other aspects discussed in this chapter include pilot testing, validity and reliability of questionnaire, data collection procedures, and data analysis techniques.

A. Research design

There are many research designs that are being used by scholars in different areas of academic research. The research design here is quantitative research across cross-sectional survey as the method of data collection. This survey will be designed to identify how to implement flipped Arena in Malaysia. This design will be used because the researcher can measure the current attitudes or perception of the lecturers towards flipped classroom. The design also helps the researcher to do the survey and collect the data in short time [7]. The instrument adopted and will be subjected to validation by experts who will make individual constructive observations and criticisms on the drafted items, before it will be finally rephrased and produced for actual data collection. Descriptive statistics percentage, correlation, independent sample t-test, multiple regression, and one-way ANOVA will be used for analyzing the data which will be collected.

The study will use a quantitative method research design. According to Creswell (2007), the quantitative research can be defined as “a type of educational research in which the researcher decides what to study, ask specific, narrow questions, collects numeric (numbered) data from participants, analyzes this number using statistics and conducts the inquiry in an unbiased, objective manner. “In addition, according to Cohen (1980), the quantitative research is defined as a social research which is conducted in empirical methods and statements. The definition of an empirical statements, as he contends, is a statement about what “is” in the actual world rather than what “ought to be” the state. And also the usage of quantitative method will ensure high reliability, validity and generalizability to the collected data [15]. In addition, quantitative data is more precise, and the researcher is objectively separated from the object matter [24].

B. Population of the study

Population is a group of individuals who are different in nature but same in profession. A target population for this study is a group of people in the rural area, physically challenge, and the old people with knowledge bearing some common defined characteristics that the researcher can identify and study, some on the hand have total different idea from the other set [7]. The population of the study will consist of people in the rural area, physical disable and the old people with the knowledge. The almost accurate number of this will be 700. The target population of the study is shown in the table 1 below:

Table 1: target population of the study in the department of education

Gender	Population	Percentages
Female	20	40%
Male	30	60%
Total	50	100%

C. Sample of the study

From the aforementioned population which will be used for the purpose of this study as the target population, the researcher will select 50 through purposive sampling procedure in order to get the data from within the accessible location. Purposive sampling method can be used to select the respondents of the study on the basis of experience or other criteria’s.

D. Instrumentation

In the process of research, one of the critical steps to collect data is instrumentation. There is no scientific research in which the instrumentation procedure is neglected, as the solution of the problem is to be found by the "tool" that is used in the study. As is well known, there are different types of instruments which can be used by researcher including questionnaire, observation, interview, and measuring scales [9]. In the present study an adopted slightly modified questionnaire is proposed for use.

E. Adopted questionnaire

The instrument to be used for collecting data for this study is questionnaire from [12].The questionnaire items adopted to obtain the data on some aspects and were classified into sections as follows:

Section “A” of the questionnaire is designed to collect the demographic information of the respondents, which includes; gender, age, and flipped Arena experience.

Section “B” of the questionnaire consisted of 16 items, Respondents will be provided with five options (levels) of responses in which they are required to indicate his/her perception level using a 5 point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

F. Pilot Test

The adopted questionnaire items for the study will be subjected to pilot testing on 50 respondents in order to ascertain the reliability of instrument. This will allow for the identification of weak items in the instrument, which will be rephrased, or replaced before final adoption of the instrument. Another purpose for the pilot testing is that, it helps in determining the appropriateness of the instrument intended to be used. The reliability indexes of the questionnaire items will be obtained after the pilot survey to suit the purpose of this study. The most frequently used statistical method to assess internal consistency reliability is the Cronbach’s alpha, it measures range from 0 to 1.00, for the instrument used in basic research, it is desirable to have a reliability coefficient of .70 or higher, the close value to 1.00 indicating high consistency In this study, the Cronbach’s alpha will be used to assess the internal consistency reliability of the items after keying the data into SSPS version 16.

G. Data collection procedure

Prior to distributing the questionnaire among the targeted respondents, the procedures and the ethics of conducting research will be observed and complied to. In particular, two types of research procedures will be utilized, the first being obtaining permission letters from the relevant authorities, and the second procedure being distributing the survey questionnaire.

H. Data Analysis Procedures

After collecting the data, the researcher will assign numbers to all the questionnaires when entering the data, to identify and refer back to any questionnaire if a problem or confusion occurred. The data from the questionnaires will be analyzed using the SPSS 16.0 software package.

In order for the researcher to get the accurate results of the study, the procedure for analyzing the data will be made using five different techniques, namely the descriptive statistics percentage, independent sample t-test, and on-way ANOVA, Correlation, and multiple regression.

The first technique, the descriptive statistics involving percentage and frequency counts will be used to analyze the demographic data of the respondents in order to determine missing values and to ascertain their percentage. The same tool will be used for analyzing ANOVA, Correlation and Multiple Regression. The analysis of data has been categorized into three levels based on the Table II namely low, moderate and high. The low mean score is from 1.00 to 2.33, the moderate mean score is from above 2.33 to 3.66 and if the mean score is more than 3.66 it can be categorized as high mean score. This categorization will be made by the researcher for the ease of data interpretation.

The ANOVA will be used in determining the differences among the respondents’ perception based on selected demographic variables such gender and age. The correlation

analysis will be used to confirm whether there will any statistical relationship between the flipped Arena and their perception.

The multiple regression will be used in the data analysis to showcase the effect of respondents' demographic variables such as age and gender on flipped classroom.

Table 2: classification level of mean score

Range of mean score	Classification
1.00 < M < 2.33	Low
2.33 < M < 3.66	Moderate
4.00 < M < 4.66	High

IV. CONCEPTUAL SOLUTION MODEL

Key partner	Key activity	Value proposition	Customer relationship	Customer Segments
<ul style="list-style-type: none"> •KKMM (Kementerian Komunikasi and Multimedia Malaysia) •KKLW (Ministry of Rural and Regional Development Malaysia) 	<ul style="list-style-type: none"> •Industry feedback •Advert placement •Topic based brief •Team building •Cross-functional collaboration •Real-world-cu munication/i nteraction 	<ul style="list-style-type: none"> •Development of Infrastructure facility to provide and showcase industry knowledge and medium of communication 	<ul style="list-style-type: none"> •Speakers •Formative assessment 	<ul style="list-style-type: none"> •Old people •Disable people •Resident of rural area
	<ul style="list-style-type: none"> Linking people from the rural area to the world 	<ul style="list-style-type: none"> Work-Ready Participations 	<ul style="list-style-type: none"> Support less privileges Students Old people 	
		<ul style="list-style-type: none"> Bridge the gap: -Information -Communication 		
	<ul style="list-style-type: none"> Key resources •Software developers •People with knowledge 	<ul style="list-style-type: none"> This will help the people to communicati on better and efficiency -Ideal for self-builders -Ideal for old people with knowledge 	<ul style="list-style-type: none"> Channels •Web application •Mobile application •Marketing/ apps 	
<ul style="list-style-type: none"> Cost structure •Ability to pay for the apps/developer on subscription basis 		<ul style="list-style-type: none"> Revenue stream •Advertisements •Sponsorship for industry contribution 		

Figure 1: BMC (Business Model Canvas)

BMC is the simple tools to describe, design, challenge, invent, and pivot a business model. According to the figure 1 above, it can be divided into nine components as follows:

- 1) Customer Segments: old people, disable people and resident of rural area.
- 2) Value proposition: it focuses on development of infrastructure facility to provide and showcase industry knowledge and medium of communication, which will bridge the gap space. The value will be in the instance and effective communication and knowledge sharing medium.
- 3) Customer relationship: speakers and formative assessment.
- 4) Channels: the distributed channel for flipped arena is web application, mobile application and marketing applications.
- 5) Key activity: the key activity for this BMC is industry

feedback, advert placement, topic based brief, team building, cross-functional collaboration and real-world-communication and interaction.

- 6) Key partner: there are two key partners that are involved which are KKMM (Kementerian Komunikasi and Multimedia Malaysia) and KKLW (Ministry of Rural and Regional Development Malaysia).
- 7) Key resources: software developers and people with any knowledge.
- 8) Revenue stream: the flipped arena can earn profit by advertisements and sponsorship for industry contribution.
- 9) Cost structure: the applications and developers on subscription basis.

V. CONCLUSION

This study introduce the flipped arena, which will be a communication and knowledge receiving medium for the rural area, physically challenged, and the old people. The receiving method would be through apps, which is conversely explain in the BMC. Further explanation brought the study to the research design, sample population that will be used, the possible revenue and so on. The data analysis will be descriptive as many of the activities involve will need a clear explanation.

REFERENCES

- [1] Bergmann, Overmyer, J, Wilie, B (2013). The Flipped Class: Myths vs Reality. Retrieved from <http://www.thedailyriff.com/articles/the-flipped-class-conversation-689.php>.
- [2] Bishop, J. L., & Verleger, M. A. (2013, June). The flipped classroom: A survey of the research. In *ASEE National Conference Proceedings, Atlanta, GA*.
- [3] Bormann, J. (2014). Affordances of flipped learning and its effects on peopleengagement and achievement (Doctoral dissertation, University of Northern Iowa).
- [4] Chadwick, B. A., Bahr, H.M. &Albrecht, S.L. (1984). Social science research methods. New Jersey: Prentice Hall.
- [5] Clark, K. R. (2013). Examining the effects of the flipped model of instruction on peopleengagement and performance in the secondary mathematics classroom: An action research study (Doctoral dissertation, Capella University).
- [6] Cohen, L. and Manion, L. (1980). Research Methods in Education. London: Groom Helm Ltd., 1980
- [7] Creswell, W . (2007). Qualitative Inquiry and research Design: Choosing Among Five Approaches. Thousand Oaks: Sage.
- [8] Gregory, R. L. (1997). Knowledge in perception and illusion. Department of Psychology, University of Bristol. Available at http://www.richardgregory.org/papers/knowl_illusion/knowledge-in-perception.pdf
- [9] Jekayinfa, A.A &Yusuf, A. (2004). An investigation into peopleteachers' views on the introduction of environmental education into the Nigerian social studies curriculum: instituted journal of studies in education 2(1).
- [10] Jenkins, C. (2012). The advantages and disadvantages of flipped classroom. Available at <http://info.lecturetools.com>
- [11] Johnson, G. B. (2007). Peopleperceptions of the flipped classroom. Master's degree thesis at the University of British Columbia.
- [12] Johnson, G. B. (2013). Peopleperceptions of the Flipped Classroom.
- [13] Kenna, D. C. (2014). A study of the effect the flipped Arena model on peopleself- efficacy (Doctoral dissertation, North Dakota State University).
- [14] Marlowe, C. A. (2012). The effect of the flipped Arena on peopleachievement and stress (Doctoral dissertation, Montana State University-Bozeman, Graduate School).

- [15] Matveev, A.V. (2002). The advantages of employing quantitative and qualitative methods in international research. *Bulletin of Russian communication Association*. 59-76.
- [16] Misra, S., & Bajpai, A. (2010). Role of ICT in enhancing the educational productivity. Available at SSRN 1732645.
- [17] MUSIB, M. K. (2014). PeoplePerceptions of the Impact of Using the Flipped Arena Approach for an Introductory-level Multidisciplinary Module.
- [18] Myxter, J. (2014). The Effects of Flipping the Arena on Arena Environment and PeopleAchievement (Doctoral dissertation, Minot State University).
- [19] Phillips, C. R., & Trainor, J. E. (2014). Millennial people and the flipped classroom.
- [20] Pickens, J. (2005). Attitudes and perceptions. <http://healthadmin.jbpub.com/borkowski/chapter3.pdf>
- [21] Ramey, K (2013). What Is Technology – Meaning of Technology and Its Use. Retived from <http://www.useoftechnology.com/what-is-technology/>.
- [22] Roshan, S (2012). Reflecting on the flipped class through peoplefeedback. Retived from <http://www.thedailyriff.com/articles/reflecting-on-the-flipped-class-932.php>.
- [23] Shimamoto, D. (2012, April). Implementing a flipped classroom: An instructional module. TCC Conference.
- [24] Smith, J.k. (1983). Quantitative versus qualitative research: an attempt to clarify the issue. *Educational researcher*. 12 (3), 6-13.
- [25] Snowden, K. E. (2012). Speakerperceptions of the flipped classroom: Using video lectures online to replace traditional in-class lectures (Doctoral dissertation, University of North Texas).
- [26] Tucker, B. (2012). The flipped classroom: Online instruction at home frees class time for learning. *Education Next*, 12 (1). Retrieved from <http://educationnext.org/the-flipped-classroom/>
- [27] Wiginton, B. L. (2013). Flipped instruction: An investigation into the effect of learning environment on peopleself-efficacy, learning style, and academic achievement in an Algebra I Arena (Doctoral dissertation, The University of Alabama Tuscaloosa).
- [28] Zaidieh, A. J. Y. (2012). The use of social networking in education: Challenges and opportunities. *World of Computer Science and Information Technology Journal (WCSIT)*, 2(1), 18-21.
- [29] Zhao, Y, Ho, A (2014). Evaluating the Flipped Arena in an Undergraduate History Course. Retrieved from http://harvardx.harvard.edu/files/harvardx/files/evaluating_the_flipped_classroom_-_zhao_and_ho.pdf.



Salisu Idayat Omolara is doing M.IT. at Kulliyah of Information and Communication Technology, International Islamic University Malaysia.



Panadda Auyphorn is doing M.IT. at Kulliyah of Information and Communication Technology, International Islamic University Malaysia.



Abdul Rahman Ahmad Dahlan is a Senior Academic Fellow at the Kulliyah of of Information and Communication Technology, International Islamic University Malaysia. Currently, he is the Deputy Dean, Corporate Strategy and Quality Assurance, International Islamic University Malaysia