#### **CHAPTER II**

## **REVIEW OF RELATED LITERATURE**

#### 2.1 **Relevance Theories**

This chapter, researcher presents several theories correlate to the topic with the purpose of supporting the research, as regard Learning Media, Google Classroom, and Students' Perception. STAS ISLAM RIAL

#### **Theory of Learning Media** 2.1.1

The researcher discusses and explores a number of additional theories relate to the Learning Media and it explained as Concept, Purpose, Type, and Advantage of Learning Media.

## 2.1.1.1 Concept of Learning Media

Media is turning out to be more essential in the course of teacher training. Derived from Buckingham (2003) the word "Media" is the plural form of "Medium", and a medium is generally used in communicating without meet in person or face-to-face. Then, a media consist of a total variety of modern communications media such as television, video, advertising, computer, internet, and so forth. Besides, the word "Media" have roots in the Latin, which is "Medius", it means "middle", "intermediate", or "introduction" (Anwariningsih & Ernawati, 2013).

Moreover, it is a varied viewpoint about its meaning. As said by De Corte et al. (1974, p. 189) as cited in Zyl (1977: 68) medium is some methods applied or gave by the teacher to use in teaching process to achieve a certain goal. Followed by Dugger et al., (2001:32), (Perraton, 2000:31), Cheek & Walsh, (1996:46) in Burke (2005: 11) media describes as the whole process and things to assist the process of learning. Correlates to McLuhan in Atherson (2003) as cited in Burke (2005: 11), the medium is a message, even in the teaching, a media can be used as a process to perform a message.

If the media transfers information and ideas which have educational purposed or teaching intentions it is called as Learning Media (Gerlach & Ely in Arsyad (2006) as cited in Anwariningsih & Ernawati (2013: 123). A learning media could be marked as the thing used by teacher to students to use, to accomplish a specific teaching and learning's purpose. Not only as tools or pictures, but also incorporate with a majority kinds experience of learning (Jacobs et al., 2002, in Burke 2005: 12).

Associate to that, Reiser & Gagne (1983: 5) in Burke 2005, theorizes a learning media is a real instrument that shared the educational message and chose by their capability to give the instruction procedures. Nevertheless, a media can be described by the technology. Janssen (1969: 56) as cited in Zyl (1977: 69) reports teaching technology is focussed to teaching and is used certainly to its purpose and arrangement of teaching. Media are the symbol techniques usage by teachers and students to symbolize knowledge. Whereas, technologies are the instruments that let the teachers and students communicate their knowledge to others (Reeves, 1998).

To finish, it can be defined that learning media is a tool and a balancing process that the teacher used to students to transfer information in order to achieve a certain lesson's purpose at all its form.

## 2.1.1.2 Purpose of Learning Media

UNESCO (2006) confirms, learning media aims to widen a lane in competence centre, not only in print but also in the other representative of sounds and images. As a result, teaching media also aims to expand critical comprehension and involvement of contribution. It makes students possible to understand and tell their perception as a user of media, and also facilitate them to turn out to be a producer of media with their own right. As reported by Bertram (2010, p. 19) the media are the usage of sources that are purposely used to communicate. This purpose can be used to amuse, report, teaching, or influence. Learning media associates to media that particularly advanced for the purpose to teaching or in academic purposes. Every one of teaching media are categorized as a result of a content which is selected, and followed by understandably ordered, thus as in order to advance in learning.

Romiszowski (1998) in Taiwo (2009) classified the media into two functions, the first is Media as Instructional Aides and the second is Media as Instructional Systems. Media as Instructional Aides means the media are used entirely to improve the performance of the teacher. Mostly one-way receivers very incompetent to figure out some information which student can communicate. Then, the Media as Instructional Systems is the media are used to encourage individual of teaching in common and uncommon situation.

The usage of learning media would complete the teaching and learning practice. Media will present a more efficient process of learning, and then improve the students' ability to comprehend and to experience the lesson. The media works as a facilitator and has a great capability as an instructional tool. Teachers have to enhance the students' concentration by using an effective media (Mallikharjuna, 2014). Correlates to Agnihotri and Singh (2012) as cited in Mallikharjuna (2014: 142) state that the teachers have to engage the students with the reference of the world too and support the students' creativeness by introducing the media. Looked into some various types of media, learning media purposes to present (explain, clarify, etc) the learning subject matter to the students, hence the students learning process can be efficient (Vreken in Burke 2005: 12).

## 2.1.1.3 Types of Learning Media

In accordance with Conradie (1977: 10-12), Cox (1998), Jacobs et al., (2002:246) as mentioned in (Burke, 2005: 9-10) there are several traditional learning media used today, for example: printed books, chalkboards, pictures, posters, models, maps, charts, and diagrams. Romiszowski (1974) in Burke (2005: 14), claims the types of learning media into: Audio, Audio Visual, and Visual & Tactile/Kinaesthetic. More specification came from Gerlach and Ely (1980) as referred in Burke (2005: 15), media are categorized as six types, there are: motion pictures, still pictures, television, audio recording, simulations, and programmed & computer-assisted instructions.

Compares to Marais (1990: 100) in Burke (2005: 13-14) offers the types of learning media into Intrinsic Learning Media; the media involves teachings, dramatizing, demonstrations, discussions and course works; and Extrinsic Learning Media; consist of realia, pictures, sound, programs and simulations. Seeks and Glasgow in Arsyad (2006) as pointed out in Anwariningsih & Ernawati (2013: 123) separate the types of media anchored in technology improvement into:

- 1. Traditional Media
  - a. Operated Visual Quietly (projection opaque, overheads, slides, filmstrips).
  - b. Unprojected Visual (image, posters, photo, charts, graphs, etc).
  - c. Audio (tape, disk recording, etc).
  - d. Print (textbooks, modules, handouts, etc).
  - e. Games (puzzles, simulation, board games).
  - f. Realia (maps, dolls, and the specimen).
- 2. Modern Media Technology
  - a. Media Based Telecommunications (teleconferencing and distance learning).
  - Media Based Microprocessor (computer-assisted instruction, computer games, intelligent tutoring systems, hypermedia, interactive video, video compact disc).

Harmer (2007) as mentioned in Aini (2013: 199) points out the learning media consist of two components and a combination of audio and visual elements, which are Hardware (computer and LCD projector) and Software. Some experts like Borich (2002), Brown, Lewis, Harcleroad (1998), Kemp (1998), Mehra (1992), Chandra (1989), McArtney (1973) as cited in Naz & Akbar (2008: 36-37) offer types of learning media as:

- Print Media (News Paper, Magazines, Digest, Journals, Bulletins, Handouts, poster etc).
- Graphic Media (Overhead transparency Charts, graphs Models, dioramas, Maps, globes).
- 3. Photographic Media (Still Pictures, Slides, Filmstrips, Motion pictures, Multiimages etc).
- 4. Audio Media (Audiotape, Audiocassettes, Records, Radio, Telecommunication etc).
- 5. Television/Video (Broadcast television, Cable television, Videotape Video cassettes, Videodiscs, Teletext, Videotext etc).
- 6. Computers (Minicomputer, Microcomputer etc).
- 7. Simulations and Games (Boards, Written, Human, interaction, Machine etc).

Contradict to Weston and Bain (2010) in Morquin (2016: 2), they recommended to changing the media with technology integration, for example the print/textbooks into web pages, chalkboards into whiteboards, file cupboards into electronics databases. Weston and Bain assume the technology integration practice greatly changes the learning by means of making a new familiarity to students. Relates to William in 2012 in Morquin (2016: 1), the appropriate usage of technology integration in teaching and learning process could assist teachers to associate and to attract students in order to understand the skills.

## 2.1.1.4 Advantage of Learning Media

There are a various advantages of learning media in teaching and learning process as stated by Sudjana & Rivai (1992) as referred in Anwariningsih & Ernawati (2013: 123) i.e.:

- 1. Improving students' enthusiasm in learning because, learning becomes more attractive.
- 2. Helping students easier to understand the study's material, letting students to monitor and accomplish the learning goals.
- 3. Making teaching methods more creative in verbal communication, not only listen to teacher's explanation, but also doing observing, performing, demonstrating, acting, and so forth.

Obanya (1985), Campbell & Dlamini (1994), Brigg & Moore (1993) in Oyedele et al, (2013: 294) report, teaching with media develops the chances for a better learning. Most of the stimulus or the motivations rely on the teacher's media. Moreover, using the suitable learning media is needed due the facts that to improve students' motivation, and then provide more students' concentration to the teacher, for example by showing pictures and playing music, in addition it improving students' curiosity towards the lesson (Reiser & Dick, 1996 as cited in Aini, 2013: 199).

Connects to Ruis, et al (2009) in Aini (2013: 199) refers further advantages which are resolve the less experience of students' problem, accomplish the whole things out of the class, establish a directly interaction of students and their environment, and assimilate the real experience to theoretical information.

The advantageous usage of teaching media is better than prolonged explanation has already shown by teachers with a range of contexts in teaching process. Students lean to understand the subject matter to the required aim when the media is properly used. The arrangement of methods in transfer and teaching media consequently improves lesson efficacy. The teaching media and technology guarantees that the students gets, comprehends, maintains, and uses the experiences they got to complete the teaching and learning goals (Oyedele et al., 2013).

## 2.1.2 Theory of Google Classroom

In this part, the researcher explores four constructive theories with reference to Concept, Purpose, Advantage, and Procedure towards the usage of Google Classroom.

## 2.1.2.1 Concept of Goole Classroom

At the beginning, Google just functioned as a search engine, but at this present day it gives many further possibly transformative things for academic classroom purposes. The things are: Advanced Search, Custom Search, Site: Search, Google Trends, Google Fusion Tables, Google Images, and much more, like translation tools, bookmarking, scholar research tools, blogging, photo sharing, site creation tools, and the like. Derived from Google Inc. (2014), Google Classroom is a recent tools deserving in Google Apps for Academic (GAFE) in 2014.

Google Classroom is a combination of programme on learning that has a purpose to make simpler the making, delivering, and rating students' work in a paperless educational procedures. It is launched on August 12, 2014 as an aspect of Google Apps for Education (Fisher, 2016). A correlate to it, Iftakhar (2016) notes, Google Classroom is a consideration as best programmes of Google Apps to improving teachers' activities with their classes. Google Classroom available on Google Apps, especially for Education, and it is automatically connected with another efficiency application incorporate with Gmail, Google Drive, and Docs.

Papas (2015) as mentioned in Morquin (2016: 9), asserts that Google Classroom as a free learning application system allocates their user to work together in online, to make and then submit the task, and to communicate with other students or teachers. As indicated by Morquin in 2016, Google Classroom, a very current Educational Application, its usage and attractiveness are one of the most application that have been rising between teachers and school environment as a result of its new performance.

## 2.1.2.2 Purpose of Google Classroom

Google Classroom enables teacher to make and to arrange assignments instantly, support feedbacks effectively, and interact in their classes or students with a lack of difficulty. Furthermore, it also assists students manage their assignments with connect to the Google Drive, finish and report their assignments, and interact directly to their teachers and friends. Teachers have a more time to teach and students have more time to learn (Google Inc, 2014). Along with Fisher (2016), Google Classroom purposes to conduct a paperless educational system.

Additionally as reported by Iftakhar (2016) Google Classroom supports some of influential elements in it to turn into the best application to apply together with students. It aids teachers to save their times, maintain the classroom management, and advance interaction directly along with their students. Process of teaching and learning with Google Apps is simple to apply.

## 2.1.2.3 Advantage of Google Classroom

Janzen (2014) in Iftakhar (2016: 13) reports the Google Classroom's advantageous, namely:

1. Easy to Use

Its devices intentionally make the instructional boundary simpler and there are some options utilized to distributing and controlling assignment, interact with the whole class or every student is easy too throughout the announcement, email, and drive notification.

2. Saves Time

It also connects and mechanized to another Google Apps usage, together with Ms. Word, Ms. PowerPoint, and Ms. Excel. The procedure of managing file spreading, scoring, assigning, and feedback are also simpler and organized.

3. Mobile Friendly

Google Classroom is really approachable, it can be used in every devices of mobile. Mobile friendly to finding out some materials which are interesting and not difficult to communicate among the website link in today's academic environments.

Likewise, Mary (2014) as referred in Iftakhar (2016: 13) adds up some the advantages of Google Classroom, such as:

1. Cloud-Based

Google Classroom provides new specialized and real technologies to apply in learning process because Google Apps signify a significant part of project communication like Cloud-Based during the skilled workers.

2. Flexible

It also flexible and understandable for the teachers and students, even in person communication and completely in online process. This means, it facilitates the teachers to discover and affect, turned over easier instructional methods in addition to automate and manage the delivering and submitting the assessments and interaction in many interactive ways.

A clear statement by Keeler (2014), Crawford (2015), Chehayeb (2015) in Iftakhar (2016: 13), Google Classroom makes certain modern counselling just by sharing an announcement and also persuade to work in team of students. Google Classroom provides a mutual learning process. Teachers enable to send materials and respond a feedback to the students, and then the students can do the same too. At that moment, students able to work in partnership with other students, they can discuss and produce the excellent assessments. Google Classroom designed to time-saving, because it has some sort of features such as send results to Google Sheets, revise the grade score range easily, and classify the scoring sheet, in purposes to saving teachers' time.

Indicates to Iftakhar (2016), Google Classroom can be useful both for students and school. First, Google Classroom is free available application to students without access into Educational Institution and students able to access other Google Application like Drive, Docs, Spreadsheets, Slides, and the like, just by using their Google Account. After that, the Google Classroom remains the students' documents more managed in light of the fact that their assessment saved in paperless way in one application. Next, school enable to detect the students who have a problem with their course suddenly, because the controlling system linked together with the assigned assignments. Then, scoring procedures is easier for the reason that scoring procedures linked together with students offers.

# 2.1.2.4 Procedure of Google Classroom

Google Classroom is very easy to make and to use, there are some features are link and available. At the beginning to get started teacher and student need to visit <u>www.classroom.google.com</u> website in PC to register, or download the application in android's Play Store. Then, someone has to choose if he/she is a teacher or a student, choose teacher to create a class and choose student to join a class. After the class is created, there will be three tabulation in that page such as Stream, Students, and About. There are some Google Applications that linked with Google Classroom like Google Maps, Gmail, Play Store, Google Drive, Calendar, Google+, Google Translate, Photos, and Youtube (Iftakhar, 2016). The next following explanation is a more detail of how to use Google Classroom:

1. These are the first display when we visit *www.classroom.google.com* website and Google Classroom Application in phone.



Figure 2 Application Mode

2. After registering by SignIn in your Google Account, Google Classroom will look for creating a class to teacher or joining a class to student.



Figure 4 Create a Class by Application

3. Then, you have to fill the class information like subject and section/period, so that if the teacher teaches a several lesson they able to differentiate it, and click Create to finish it.



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Figure 6 Class Information by Application

4. There will be three columns on the page after you create a class, such as Stream, Students, and About. The Stream column gives notification to students if there is any new announcement or assignment that the teacher has shared (either Assignment or Announcement). It gives a chance to students for comment or ask question on teacher's post, and also it will show the teacher the total of students that already submitted the assignment. In the Students column, teacher able to email, add, and remove the students. Teacher can add the students by click Invite or give student a Class Code so they can Join the class. Then, the About column, this page is the information of lesson name, description, location, and teacher contact information.



Figure 8 Students page by Website



Figure 10 Stream page by Application



Figure 12 About page by Application

5. Next, is how the teacher makes a question, an assignment, and an announcement by click a Plus Symbol (+) in the bottom right of Google Classroom page, either in the Website or in the Application has a same way and display. Make a question option is used for check an understanding quickly, lead a class discussion, and the rest.

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	Figure 13 Make Ouestion Displa	av

In create a new assignment, teacher have to complete some blank space needed to give clear information to the students like add a title and description of assignment, assign a due date, attach the assignment from your document in computer or Google Drive, and the teachers can link a related Youtube video or website if it need, then click Assign to post it.

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The last is share anything to student by Announcement, teacher also able to attach a file, share a drive file, link a Youtube video, and share a link website. The students can comment and ask about the announcement posted by teacher, then click Post to be done.

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## 2.1.3 Theory of Students' Perception

There are some grounded-theories about the students' perception the researcher deliberates as followed the Concept, Purpose, Type, Component, Principle, and Factor Influencing.

## 2.1.3.1 Concept of Students' Perception

Perception has a various definition as indicated by experts. Relates to Gibson (1993) in Meiriza (2015: 146), he describes perception as a process to interpret and to understand about their environs by their feelings. Moreover, Walgito (1999) as cited in Melisa (2013: 12), perception is a result of organizing and interpreting a stimulus by a person integrally, hence it will worth. He also adds, perception is a phase of recognizing, interpreting, and evaluating about

attitude, quantity, and condition of an object. Bodenhausen and Hugenberg (2009) have drawn their attention to the fact that perception and attention change as a result of the motivation and emotion of the perceiver. That is to say, perception is developing from someone senses and what someone already done.

Desiderato in Rakhmat (2005) as referred in Sari (2013:45) states, perception is a characteristic of understanding about an experience towards an object, situation, or relationship that are achieved it by summarizing information and messages. So, a number or experience will make a student understand what they has seen or heard in their present time because of their past experiences. Whilst, Zacks et al., (2007) asserts the perception as an approximately ranked procedure, which the receptive information is sequentially changed into interpretations that construct the basic action. Arising out of these assertions, it means that perception is a logical procedures or processes that represent someone's awareness, understanding, and behaviour of something. Whereas, Slameto (2010: 102) in Meiriza (2015: 146) articulates the perception is a process that engages the addition information or message en route to the brain by way of human sense, and will continuously relate to their environment.

Perception comes from the English language that means views, feelings, the power of vision, knowledge, awareness, or observation (Meiriza, 2015). In line with that, Robbins and Judge (2012) point out, perception as individual process of organizing and interpreting their thought based on their senses to get a meaning from an object. Perception is an achievement of process in the human brain and an appearance of a view towards the experience as a significant interpretation of stimuli (Koentjaningrat, 2010 in Aprianto 2017: 4). Followed by Sari (2010), students' perception is an interpreting process about something and tool to find out student's success in learning, which are effected by some factors.

## 2.1.3.2 Purpose of Students' Perception

Bulut and Durak (2003) articulate, the students are confident to state their perception clearly, either for their teachers and themselves. It also would let students be care about the reason they are contributing in specific actions, and the way those actions aid them to study English, and bring them to use it for learning purposes and out of the classroom. Teachers have to recognize the truth that there would not be a successful and pleasant teaching with no students' involvement in classroom. It's become the most important reason for engage the students' perception in classes. Teacher shall be concern of students and their perceptions, in order to make teacher create an appropriate activities to advance students' skills in the classroom like listening, speaking, writing, and reading. Associates to that, Alge et al., (2006) in Mesquita (2013: 17) indicate a perception is something that control personality information and persuade their motivation and the following behaviour.

Students' perception is a fundamental aspect for teacher power. The students need to recognize the teacher power, either direct or indirect, and the power should be integrate with the effort to be successful (McCroskey & Richmond, 1983). Connect to Sulistiyorini (2013), perception is the learning director in teaching and learning for students. Perception makes the students have an expectation in learning, but their expectation will not be achieved if they face some problems. So that is why the teacher should recognize the students perception towards their expectation in learning.

## 2.1.3.3 Types of Students' Perception

On the word of Richard (2002:391) as cited in Fitri (2016: 32) perception comprises three types that are:

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1. Visual

Visual Perception is the information and the stimulus that interpret by a person on visual object or event.

2. Audio

Audio Perception is the information and the stimulus to perceive the various types of caustic signals and to lead the diverse types of acoustic characteristic like their frequency, amplitude, duration, order of occurrence, and rate of performance.

3. Speech

Speech Perception is the interpretation of speech understanding.

Compares to Jalaluddin (2007) in Fitri (2016: 32), he separates Perception into two, namely:

1. Positive Perception

Positive Perception is someone's viewpoint towards an object that conduct perceiving subject agree to the object based on his personal view.

2. Negative Perception

Negative Perception is dissatisfaction and rejection of someone's source perception, even thought the object is important and related to him.

## 2.1.3.4 Component of Students' Perception

According to Davis, et al (1989) in his theory of Technology Acceptance Model (TAM), a theory of measuring someone acceptance of technology, it determined by Perceived Usefulness (U), Perceived Ease of Use (E), Attitude toward Using (A), Behavioural Intention to Use (BI), and Actual System Use.

In line with Davis, Lewis (1999) state that there are some basis components in perception such as perceiver (experiencing person and behavioural), perceived (Object, person, situation, relation, ease of use, etc), context of situation (Object, usefulness, or event), and process (actual use and attitude). Contradict Walgito (2012) as referred in Fitri (2016: 35-36), they split the components into 3, which are cognitive (perceptual that related to individual knowledge, opinion, and belief of the object perceived), affective (emotional that related to like or dislike towards the object perceived), and conative (action movement on the object perceived).

In this research, the researcher has more preference in Davis's theory, of Technology Acceptance Model (TAM) in light of the fact that, it offers the indicators of technology acceptance in common, presents the reason someone uses and accepts the usage of technology extensively, and this theory not only for detecting, but also providing rationalization. Thus, a research can find out the improper and unsuitable thing in technology system (Davis et al, 1989).

#### 2.1.4 Perceived Usefulness

In this part, the researcher goes over several studies associate to Perceived Usefulness is one of the indicators in Technology Acceptance Model by Davis (1989).

## 2.1.4.1 Concept of Perceived Usefulness

Perceived Usefulness (PU) is described as a phase, where someone considers applying a specific technology system will improve their performance. The students will more enthusiasts to use the online learning system in their learning process if they think it can help and improve their achievement (Davis et al, 1989). Kripanont (2007) found that Perceived Usefulness is the main consideration, because this perception influences students to use technology for their performance, and they perceive that the technology is useful.

At the time when someone considers that it is simple to use the technology system, they also will consider that the technology system is more beneficial. Associate to Proffitt (2008) in Farahat (2012), someone's perception of technology usefulness is another factor to advance their success in learning by using technology. Perceived Usefulness of Google Classroom as mobile learning media is contributed by its facilities to offer teachers and students easy to have learning group in online and to access some academic contents anytime and anywhere. Within the Perceived Usefulness, someone will use the technology if they have a good understanding, benefits, and usefulness toward that technology usage.

### 2.1.4.2 Purpose of Perceived Usefulness

Perceived Usefulness is applied to determine students' perception that using Google Classroom could improve their performances. Yee, Luan, Ayub & Mahmud (2009) in Farahat (2012), articulated that Perceived Usefulness is measured if the students perceive that technology useful to improve their performances, and make them more possible to use that technology in their learning. That means, students will perceive the usefulness of technology when they already finish, manage, and share the assignments given.

The effect of perceived usefulness on usage behaviour became stronger. Perceived Usefulness is worthy to be determined due to it had an impact on students' attitude and behaviour intention to use Google Classroom as learning media. Park (2009) stated that Perceived Usefulness and Perceived Ease of Use were important in influencing user attitude. Founded by Subramanian (1994) as cited in Zogheib et al., (2015), perceived usefulness had important connection in attitude toward usage behaviour. Then, Fu, Farn, and Chao (2006) and Norazah, Ramayah, and Norbayah (2008) in Zogheib et al., (2015) confirmed that Behavioural Intention (BI) was mostly determined by Perceived Usefulness (PU).

Also, Perceived Ease of Use affecting Perceived Usefulness, the easier the technology, the more useful that technology will be (Venkatesh & Davis, 2000 in Kripanont, 2007). A lot of researchers claimed that the ease of use a technology will conduct someone to perceive its usefulness (Redzuan et al., 2016).

#### 2.1.5 Perceived Ease of Use

The researcher discusses and explores a number of additional theories relate to the Perceived Ease of Use.

## 2.1.5.1 Concept of Perceived Ease of Use

Correlates to Davis (1989), Perceived Ease of Use is a phase where someone considers applying a specific technology will be effortless and without difficulty. If a system is quite easy to use, someone will be more enthusiasts to learn and finally propose to continue using it. Students prefer online system easy to use to make them competence in internet and communication, besides the usual learning.

Perceived Ease of Use is about someone' perception towards the efforts they needed to learn by using the technology (Alrafi, 2009, in Farahat, 2012). Users of the technology do not require a formal training for them to operate the system or procedures. In the context of this research, Perceived Ease of Use refers to the phase to which students consider that their continued use of Google Classroom is effortless and easy.

#### 2.1.5.2 Purpose of Perceived Ease of Use

Perceived Ease of Use is applied to determine students' perception that using Google Classroom is easy and efficient. Perceived Ease of Use presents someone's perception of the innovation system is easy to understand, learn, and operate (Rogers, 1962 in Jahangir and Begum, 2008). Associates to that, Redzuan (2016) articulated Perceived Ease of Use determines the phase of someone achievement easy to get, learn, and work. Davis et al., 1989; Mathieson, 1991; Gefen and Straub,2000; Gahtani, 2001 as cited in Jahangir and Begum (2008) they reported that perceived ease of use is the measurement of someone perception that using a system would be efficient. Thong et al, (2004) in Redzuan (2016) confirmed that for the specific person, it is easier for them to communicate with the effective technology. Perceived Ease of Use measures someone perception of ease of use and ease of learning. Perceived Ease of Use enables the technology users experience its innovation and advantages easily (Consult, 2002 in Jahangir and Begum, 2008).

Derived from a several theories, Perceived Ease of Use is important to determine the influence of usage behaviour toward the technology (Kripanont, 2007). Strengthened by Fagan, Wooldridge, & Neill (2008); Hsu et al., (2009); Jahangir & Begum (2008); Ramayah, Chin, Norazah, & Amlus (2005) cited in Zogheib et al., (2015), they discovered that Perceived Ease of Use have the best impact on the Behavioural Intention to use different applications and be an important concept in e-learning system. In addition, Moon & Kim (2001) Zogheib et al., (2015) stated that Perceived Ease of Use is the main reason designed for the acceptance and use technology in common.

## 2.1.6 Attitude toward Using

With a view to avoid misinterpretation of Attitude toward Using as one of the indicators of this research, researcher presents the following terms:

## 2.1.6.1 Concept of Attitude toward Using

Attitude toward Using is someone's assessment toward an object that they used which expressed in positive or negative perception (Brecider and Wiggins, 1989, in Lee, 1997). Correlates to Otaibi (2012), Attitude toward Using is some positive or negative, and favourable or unfavourable perceptions, opinions, or feeling of someone to use or not use a technology. Karjaluoto, Mattila, and Pento (2002) as cited in Zogheib et al., (2015) stated, Attitude toward Using is someone willingness to use the system. It will likely motivate a user to utilize the technology.

Attitude toward Using defines as someone's assessment about value of object on some measurement like good/bad, harmful/beneficial, or pleasant/unpleasant perception (Holden and Karsh, 2010). Attitude toward Using affects teachers and students to use the technology. Davis (1989) in Kanchanatanee et al., (2014) theorised that Attitude toward Using as tendency to use technology by expressing favour or disfavour perception. It also effects the intention to use the technology directly (Fishbein & Ajzen, 1977; Davis, 1989, as cited in Kanchanatanee et al., 2014).

## 2.1.6.2 Purpose of Attitude toward Using

In accordance with Karjaluoto, Mattila, and Pento (2002) in Zogheib et al., (2015:425), Attitude toward Using is an additional factor that will persuade someone towards their purpose to learn with media technology. Iftakhar (2016) claimed that Google Classroom functioning will success if teachers and students have a positive attitude toward Google Classroom in teaching and learning process. Also, their perception will indicate the grade of its innovation (Rogers, 2003, in Iftakhar, 2016). Positive or negative the Attitude towards Using of students, in using technology, is a key to understand their motivation in learning. The positive attitude would make them increase the technology usage, in contrast the negative attitude would make them use the technology infrequently (Lee et al., 2003, in Akbari et al., 2016).

Shaw and Wright (1967) as cited in Lee (1997), assumed that those attitudes persuade the students' behaviour because, a specific attitude will make them do a consistent behaviour to the object. The purpose to find out the Attitude towards Using of students is to indicate their behaviours in teaching and learning (Otaibi, 2012). Relates to Greenwald (1989) in Lee (1997), Attitude toward Using of students who experience directly to an object is an important influence of their behaviour. If teachers recognize the attitude and perception of their students, they will be easier to determine the students' behaviour towards the technology (Kay, 1993, in Weinberg, 2010).

## 2.1.7 Behavioural Intention to Use

This part, researcher explores several theories relate to Behavioural Intention to Use as indicator in supporting the research.

#### 2.1.7.1 Concept of Behavioural Intention to Use

Ramayah et al., (2003) as cited in Farahat (2012) acknowledge the Behaviour Intention as a phase of someone to determine a plan in their mind to do or not to do the online learning by technology. Behavioural Intentions are determined by feelings someone have toward the behaviour and what they think they should do. Behaviour Intention is someone's current act toward an object. Basically, Behavioural Intention is influenced by someone's experienced of the technology usage and it will influence their intention to use the technology in the future. Behavioural Intention is determined both by Perceived Usefulness and Attitude toward Using (Kripanont, 2007).

A student's Behavioural Intention can be caused by his/her feelings about the system. If the students do not like the system or if they feel unpleasant when using it, they will probably want to replace the system with a new one. Relates to Holden and Karsh (2010) conclude that Behaviour Intention is someone's willingness to put an effort to act toward the object.

## 2.1.7.2 Purpose of Behavioural Intention to Use

Behavioural Intention is important to predict the behaviour in object usage of students' academic (Kripanont, 2007). Behavioural Intention is used to define the scale to when a student makes intentional plans to use or not to use online learning in related activities (Ramayah & Ignatius, 2005; Lement & Bush, 2011, and Li & Huang, 2009 in Farahat, 2012).

The users' consistent use of the technology is clearly influenced by their Behavioural Intention, which is influenced by their previous experience through the technology (Sumak, Hericko, Pusnik & Polancic, 2011 in Farahat, 2012). It is such a progress of behaviour to still use or not use a technology. Behavioural Intention is effectively associated to someone's actual behaviour, if someone aims to do behaviour or an act, then it is possible to be done.

### 2.1.8 Actual System Use

Actual System Use is one of the indicators in Technology Acceptance Model by Davis (1989). There are several explanations correlate to the Actual System Use:

# 2.1.8.1 Concept of Actual System Use

Davis (1986) as cited in Pan et al., (2005) declares, Actual System Use as someone's performance of particular behaviour and it define in a measuring form towards the frequency and duration of technology usage in their real life activity. This refers to real act of students using the Google Classroom in their learning activity. It can be the frequency of use, total of times used, and total amount of money they spent.

Actual System Use is influenced by Behavioural Intention in their internet experience for learning (Kripanont, 2007). Based on Tangke (2004) as cited in Wibowo (2008: 3), someone will satisfy in using a system if they believe that the system is easy to use and to improve their productivity. Actual System Use can be measured by using Objective and Subjective form. In Objective form can be measured by using the logs of usage on the software or the application, while in the Subjective form measures by using questionnaire to get the users opinions (Turner et al., 2010).

## 2.1.8.2 Purpose of Actual System Use

Actual System Use is measured to find out the students' frequency, their times used in interaction or use the technology, and satisfaction toward their learning activity. Task performance is stimulated when a system is easy to use; at the same time for the user to be at all interested in using it. Davis (1989) as cited in Asiimwe and Grönlund (2015) state that Perceived Usefulness and Perceived Ease of Use will determine Actual System Use. The more easy the system to use and help them improve their productivity, the more satisfy someone to use the system. This perception will link them to use the system intently (Venkatesh, 1999, in Asiimwe and Grönlund, 2015).



## 2.2 Relevance Studies

In this research the researcher goes over several studies associate to Google Classroom.

The first study was written by Kathleen M. DiCicco in 2016, the research entitled "The Effects of Google Classroom on Teaching Social Studies for Students with Learning Disabilities". It seeks to examine the Google Classroom's effect towards learning disabilities in teaching social studies of the six 7<sup>th</sup> grade students. The aims are to find out what students and teachers perspective regarding to Google Classroom towards social studies instruction. The research shows all of the students' vocabulary scores is greater than before, but their content knowledge is limited.

Next is a research conducted by Demian Morquin, B.S., M. S. (2016) under the title "Teachers' Perceptions Regarding the Use of Google Classroom and Google Docs and their Impact on Student Engagement". The research concerns on how the teachers perception after they used Google Classroom and Google Docs, and its impact towards the students' engagement. The result reveals the school should implement Google Apps for Education (GAFE) and Google Classroom in their learning process in order to achieve the International Society for Technology in Education (ISTE) Standards.

Afterwards, a "The Effect of Using Google Classroom toward Students' Writing Ability of the First Grade Students at SMK Perbankan Riau" a research in 2017 by Bona Bangun Tua, aims to explores the significant effect from the usage of Google Classroom on students' writing ability. The result reports that there are a significant effect of Google Classroom use regarding the 1<sup>st</sup> grade students' of SMK Perbankan Riau, proved by  $t_{observed}$  of  $60 > t_{critic}$  of 5% or 59,52 > 2000.



# 2.3 Conceptual Framework

The framework is about an effective functioning of technology as learning media. It needs to perceive how agreeable the students in learning with media technology. This process shown in the Figure 2.16.



Figure 16 Conceptual Framework Adopted from Davis (1989)

# 2.4 Assumption

The researcher assumes that the research have provided good, positive, and honest perceptions for each of the questions presented by researcher towards the usage of Google Classroom application for the students. Additionally, the using of Google Classroom on teaching and learning in FKIP UIR could give some contributions.



