INTERNET AS A LEARNING RESOURCE
(Theory Planed Behavior Review)

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Abstract

This research aimed to determine (1) intention, (2) attitude, (3) subjective norm, (4) perceived behavioral control with respect to students' AILR (Adoption of Internet as a Learning Resource). The research also aimed to find out (5) the relationship between attitude and intention of the students, (6) the relationship between subjective norm and intention of the students, (7) the relationship between perceived behavioral control and intention of the students; (8) the contribution of attitude, subjective norm and perceived control behavior for the student's intentions in relation to AILR of third grade students of SMK N 3 Yogyakarta.

The method applied in this research is survey. This study population is all third grade students of SMK N 3 Yogyakarta in the academic year 2010/2011. The sample taken for this study is 44 third grade students from all majors. Sampling technique used was purposive random sampling (PRS) for the sampled students were only active in daily process of teaching and learning. For this, two permanent teachers had assisted. Data collection technique was to use the questionnaire filling. Data analysis techniques involved pearson product moment correlation and multiple linear regression to test the hypothesises.

This research found that (1) the average student has an intention of AILR which was categorized into strong, (2) The attitude of student toward AILR at the average was categorized into like, (3) subjective norm of student with respect to the AILR at the average was categorized into supportive, (4) The perceived behavioral control of the student with respect to AILR was categorized into easy, (5) There was a positive and significant relationship between attitude and intention of the students with respect to AILR, (6) There was a positive and significant relationship between subjective norm and intention of the students with respect to AILR, (7) There was a significant and positive relationship between perceived behavioral control and intention of the students with respect to AILR; (8) There was a positive and significant simultaneous contribution of attitude, subjective norm, perceived behavioral control of the students towards their intention with respect to AILR.

Key words: intention of internet adoption, learning resource, attitude, subjective norm, perceived behavioral control

1. INTRODUCTION

Koesnandar cited in Suroso and Adi Winanto (2009:3) explained that the internet has a big role in learning, namely the reference for current science, knowledge management tools, network of diverse science experts, networks among educational institutions, center for developing teaching material, curriculum development rides and community comparison of standards of competence. Unfortunately, many teenagers, especially the students have not optimized it to be a learning resource.

Ferguson & Perse cited in Giles (2003:267) found that adolescents did not use the internet to search for information about subjects at the interest. Young and Griffiths cited in Giles (2003:268) found that excessive Internet adoption were targeted more to the

social interests of building relations than to the collection of information about the subject matter. Research conducted by Astutik Qomariah Nur (2009:13) dealing with the behavior of internet adoption among urban adolescents found that internet adoption among adolescents in urban areas was devoted more to pleasure activities (leisure / fun activities) than to other purposes such as information retrieval (information utility), communications and transactions.

The description above led the research interest to the investigation of the behavior of AILR from the perspective of its intention as the antecedent variabel. The subject of this study includes third grade students SMK N 3 Yogyakarta. It was intended to reveal the extent to which students use the internet as a learning resource. The results of this study is expected to be used as basis for decision making that is instructional and lead to improved student learning facilities in all departments at SMK N 3 Yogyakarta.

Ajzen (2006:1) further revealed that the factors that cause an individual to do certain behavior, which in this case is AILR consist of two factors. The first is the individual intention to perform the behavior. The second is the perceived behavior control on the performance of such behavior.

Finally, this study only examined intention of AILR. This study also examined its predictors consisting of attitude, subjective norm and perceived behavioral control and the relationships between each and the intention of AILR.

The limitation of the study led to the eight formulations of the problem. The eight formulations of the problem is (1) how was intention of AILR, attitude toward the AILR, AILR related subjective norm of the students'; (2) how was the relationship between attitude and intention, subjective norm and intention, perceived behavioral control of the students' related with the AILR?; (3) how was the simultaneous contribution of attitude, subjective norm and perceived behavioral control towards intention of the students' in association with AILR?.

2. INTENTION OF AILR (Adoption of Internet as Learning Resource)

Intention is the tendency of a person to choose to do or not do any work. Intention is assumed to be the motivating factor in influencing individual behavior. This intention is reflected in how much the desire to try and how strong effort allocated to achieve specific behavior (Ajzen, 1991:181).

Intention to perform a behavior in this case is formed of the combination attitude toward the behavior (AILR), subjective norm about the behavior and perceived behavioral control related to the behavior. The final result is that when the degree of determination to achieve a certain level which is considered sufficient, one may be possible to realize these intentions into behavior along with a note that there are opportunities (Ajzen, 2006:1).

3. FACTORS OF AILR INTENTION

AILR intention as revealed by Ajzen (2006:1) has 3 factors. The first is the attitude towards AILR. The second is subjective norm about AILR. The third is the perceived behavioral control on AILR.

3.1 Attitude Toward AILR

Attitude is formed of the collection of beliefs called as behavioral beliefs which believe that a behavior produces certain benefits and evaluation of the expected results which can be obtained from the behavioral manifestation.

Fogarty & Shaw (2004) cited in Ketut Ima Ismara (2010:32) stated that attitudes is translated into the power of faith in the behavior (behavioral belief) and is determined on the basis of evaluation of the expected results (outcomes). Mathematical model of the attitude formation can be seen in equation (1).

$$A_\beta = \Sigma\, b_i \cdot e_i \quad (1)$$

(Fogarty & Shaw, 2004 cited in Ketut Ima Ismara, 2010:32)

A_β refers to attitude toward behavior B. b_i refers to behavioral belief that performing

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B will lead to outcome i. e_i refers to *the evaluation of out-come i*. i equal to index behavior and attitude.

Various studies show that there was a relationship between attitude and intention of AILR. Among them are Sitorus, T.G.E. (2009) and Lili Adi Wibowo, Ratih Hurriyati, Maya Sari (2010).

Sitorus, T.G.E. (2009) conducted a study on the adoption of the internet as a resource of information searching with the subject of research consisting of the users of local library. The result is about 80 percents claimed to have a positive attitude towards the adoption of the internet as a resource of information searching. These results are directly proportional to the recognition of 57 percents of the respondents that their intention to adopt the internet is for searching information.

Lili Adi Wibowo, Ratih Hurriyati, Maya Sari (2010) conducted a survey research on the use of ICT in BHMN group higher education institute with 290 respondents consisting of students, faculty and academic staffs. The result is that there is a significant positive relationship between attitude and intention to adopt the internet as a source of information searching for t test coefficient 8.26 and t critical value 1.96.

Hypothesis 1: there was a positive relationship between attitude (X1) and intention (Y) with respect to the adoption of the internet as a source of class III student of SMK Negeri 3 Yogyakarta.

3.2 AILR Related Subjective Norm

Subjective norm is the individual's perception of environmental stress in his or her life about to do or not do certain behavior. Perception is subjective in nature therefore the influence of environmental factors is also called the subjective norm. Like attitude toward the behavior, subjective norm was also influenced by beliefs. The difference is if the attitude toward behavior is a function of individual beliefs about behavior to be performed while the subjective norm is a function of individual beliefs obtained from the views of people who are relative important for the individual in the surrounding environment, such as parents, teachers, classmates and others about supporting or not supporting the specific behavior (Nur Handono, Sulastri and Rama Prastiyo Hendi, 2010:35-36).

The strength of the subjective norm lies in each normative belief (n) multiplied by motivation to comply with social pressure (m) which is directly proportional to the sum of the products produced. Subjective norm formula is written in equation (2).

$$N = \Sigma \, n_i \, . \, m_i \qquad (2)$$

(Fogarty & Shaw, 2004 cited in Ketut Ima Imara, 2010:33)

SN refers to subjective norm. n_i refers to normative belief *concerning referent i* m_i refers to motivation to comply with referent i. i equal to index.

Various studies showed that there was a relationship between subjective norm and intention of AILR. Among them was Chen, Chen & Kinshuk (2009) and Lili Adi Wibowo, Ratih Hurriyati, Maya Sari (2010).

Chen, Chen & Kinshuk (2009) conducted a study on the use of the internet to share their knowledge with the subject consisting of students of business and information technology in China. The result is that there was a positive and significant relationship between subjective norm and intention to share knowledge via the Internet with a correlation coefficient r of 0.302 and its significance value (Sig.) less than 0.01.

Lili Adi Wibowo, Ratih Hurriyati, Maya Sari (2010) conducted a survey research on the use of ICT in BHMN group higher education institute with 290 respondents composing of students, faculty and academic staff. The result is that there was a significant positive relationship between subjective

norm and intention to use the internet as a source of information search for t test coefficient of 4.27 and t crictical value of 1.96.

Hypothesis 2: there is a positive relationship between subjective norm (X2) and intention (Y) with respect to the adoption of the internet as a learning resource of third grade student of SMK Negeri 3 Yogyakarta.

3.3 AILR Perceived Behavioral Control

Perceived behavioral control is an individual perception on the availability of information or facilities and the strength of the effect influencing the individual perception on easiness of performing the behavior (Ajzen, 1991 cited in Nur Handono, Sulastri and Rama Hendi Prastiyo, 2010:37).

Perceived behavioral control is obtained from multiplication of control belief (c) and power belief (p). This perceived behavioral control is formulated as written in equation (3).

$$PBC = \sum c_i \cdot p_i \qquad (3)$$

(Fogarty & Shaw, 2004 cited in Ketut Ima Ismara, 2010:34)

PBC refers to perceived behavioral control. c_i refers to control belief that factor i will be present. p_i refers to the power of factor i to facilitate or inhibit performance of the behavior. i equal to index.

Various studies show that there was a relationship between perceived behavioral control and intention of the adoption of the internet as a learning resource. Among them was Chen, Chen & Kinshuk (2009) and Lili Adi Wibowo, Ratih Hurriyati, Maya Sari (2010).

Chen, Chen & Kinshuk (2009) conducted a study on the use of the internet to share their knowledge with the subject consisting of students of business and information technology in China. The result is that there is a positive and significant relationship between perceived behavioral control and intention to share

knowledge via the internet with a correlation coefficient r of 0,265 and its significance value (Sig.) less than 0.01.

Lili Adi Wibowo, Ratih Hurriyati, Maya Sari (2010) conducted a survey research on the use of ICT in BHMN group higher education institute with 290 respondents consisting of students, faculty and academic staff. The result is that there is a significant positive relationship between perceived behavioral control and intention to use the internet as a source of information search with t test coefficient of 2,15 and t critical value of 1,96.

Hypothesis 3: there is a positive relationship between perceived behavioral control (X3) and intention (Y) with respect to the adoption of the Internet as a learning resource of third grade student of SMK Negeri 3 Yogyakarta

Further finding obtained by Chen, Chen & Kinshuk (2009). The finding revealed that attitude, subjective norm, perceived behavioral control and social awareness to share knowledge via the Internet proved to significantly predict the intention to share knowledge via the internet with a R square value of 0,59.

Hypothesis 4: there is a positive significant contribution between attitude (X1), subjective norm (X2), perceived behavioral control (X3) on intention (Y) with respect to the adoption of the internet as a learning resource of third grade students of SMK N 3 Yogyakarta

4. RESEARCH METHOD

The study was conducted from June 1 to December 30, 2010 on the campus SMK N 3 Yogyakarta. Research subjects are third grade students of SMK N 3 Yogyakarta in the academic year 2010/2011. The sample amounted to 44 people consisting of representatives from each department. Sampling technique used was purposive random sampling. Students or members of the sampled population are those who are active in daily teaching and learning process. Sampling was assisted by

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two permanent teachers. The data was collected through filling close-ended questionnaire. Preparation of a closed-ended questionnaire was done by filling the open-ended questionnaire. The open-ended questionnaire is to collect data related to the beliefs espoused study subjects related to the adoption of the internet as a learning resource such as behavioral beliefs, normative beliefs and behavioral control beliefs. The results of the filling close-ended questionnaire covered a number of raw score for each of the variables attitude, subjective norm, perceived behavioral control and intention of AILR. The raw numbers were then processed for the purposes of data analysis. There are 4 variables measured in the closed questionnaire. Each variable consists of two constructs except intention variable. The validity test of instrument revealed that all 32 items of closed questionnaires are valid. Meanwhile, the instrument reliability test revealed that all 32 items of all 4 variables are reliable despite the level of the reliability varied. Calculations and data analysis were performed with a computer program of SPSS version 16 for windows because of the consideration of its precision and efficiency. Analysis techniques used in this research are the bivariate correlation and multiple linear regression. This study aimed to determine the relationship between the all three independent variables with the dependent variable both simultaneously and individually.

5. RESULT AND DISCUSSION

5.1 Results

The level of confidence selected is 95 percents. The results of descriptive statistical analysis reported that the average of student's AILR intention is categorized strong with mean value of 3.54 in the range of 1.00 until 5.00. The mean of students' attitude toward AILR is categorized liked with mean value of 3.84 in the range of -3.40 until 9.60. The mean of students' subjective norm is categorized supportive with mean value of 2.48 in the range of -2.00 until 7.33. The mean of

students' perception of behavioral control is categorized easy with mean value of 2.21 in the range of -2.14 until 5.86. The test of the parametric analysis prerequisite includes test for normality, linearity and multicollinearity. The result of normality test using Kolmogorov Smirnov technique showed that all the variables considered normal because each of them has a significance value above 0.05. Linearity test result showed that all independent variables have a linear relationship to the dependent variable. It is because the relationship between each independent variable and the dependent has F value which smaller than the critical value. Multicollinearity test result show that the correlation coefficient (r) between the independent variables does not exceed 0.8. Ultimately, the parametric prerequisite test was well-fulfilled. Then, the parametric analysis, including pearson product moment correlation analysis and multiple linear regression was eligible to be executed. The result of pearson product moment correlation analysis reported that the alternative hypothesis 1, 2 and 3 declared acceptable. This was because all hypotheses have correlation coefficient (r) exceeding the critical value. They are 0.667, 0.645 and 0.678 respectively. The results of regression analysis showed that the alternative hypothesis 4 was accepted. This was because F value was greater than the critical value. The F value was 20.364 and its critical value was 2.84 in the degree of freedom of 3/40. The multiple correlation coefficient was 0.77.

5.2 Discussion

The mean of AILR intention of the students was categorized strong. This means that the average student has a strong intention to adopt the Internet as a learning resource. Average of students' attitudes toward AILR (Adoption of Internet as a Learning Resource) categorized like. This means that the average student likes to adopt the Internet as a learning resource. The liked-categorized-attitudes was based on the recognition of respondents through an opened questionnaire about their belief which said that AILR could provide (1)

the ease of doing school work, (2) a more detailed explanation and straightforward about the subject matter of the school, (3) the ease, convenience and speed in the learning process, (4) the opportunity to download free antivirus when using the internet, (5) the opportunity to perform other internet activities such as chatting and browsing. The mean of students' subjective norm against AILR was categorized supportive. This meant that the average student felt that the important people for them support to adopt the internet as a learning resource. People who were important to them, according to their recognition, were the teachers, classmates and parents. The mean of AILR related perception of behavioral control of the students was categorized easy. This meant that the average students had the perception that the adoption of the internet as a learning resource is easy to do. This easy perception is recorded by respondents through filling an opened questionnaire covering the control belief saying that to do AILR the students have (1) the ability to use the Internet as a learning resources, (2) friends who are willing and able to help when experiencing difficulties in using the Internet, (3) mobile phone which can be used for internet access, (4) knowledge of the website addresses corresponding to the subject matter desired to search, (5) sufficient money to pay for the internet cafe, (6) supporting facilities, such as a laptop or a computer connected to internet network , (7) not-slow internet access speed rate. Three independent variables namely attitude, subjective norm and perceived behavioral control are categorized into liked, supportive and easy respectively. They were directly proportional to the dependent variable intention to list in a strong category. This is also corroborated by the finding that each independent variable has a positive and significant impact on the dependent variable. The positive and significant relationship between independent and dependent variables made the intervention to increase AILR possible to do. The Increasing for AILR can be done through increasing one or more of the independent variable which is empirically low. All the independent variables attitude, subjective norm and perceived behavioral

control belong to the not-low category when viewed from the overall data interpretation. More detailed assessment found that subjective norms and perceived behavioral control students were necessary to be increased again because there are some normative and control belonging to the low category.

The suggested approach in increasing AILR based on this research result was divided into three approaches. They were attitude based approach, subjective norm based approach and perceived behavioral control based approach. Increasing the AILR of the student through attitude based approach was done by spreading the issue of AILR through (1) school printed media such as poster atau pamphlet sticking on the public space like wall magazine and so forth, booklet and leaflet spreaded out in each classroom. Besides, The spreading AILR issues could be done through (2) oral of the teachers such as teacher conveying about the benefit of AILR in every chance. Beside that, increasing the AILR of the student could be done through subjective norm based approach. It was done by (1) doing the persuasive step such as conducting discussion with all the teachers dealing with AILR related topics therefore the oneness of vision could be reached. Beside that, (2) after the persuasive strategy being occupied, the principal was eligible to enforce every teacher involved internet either complimentarily or fully in on-going instruction process. (3) Sperading the issue of benefit of AILR for the sake of students to the parents or the students parental representatives in every chance, for example, every student academic advisor discuss the issue to the parents in every semester instruction evaluation publication. (3) Beside that, forming the ambassador of AILR composing the student representative from each class colud one of the alternative way. This ambassador had a function for encouraging another students to optimize AILR. This is an optional step.(4) Another step was commanding the teachers to assign the students to enrich each matter of subject with internet. Increasing the AILR of the student through perceived behavioral control based

approach was done by providing more factors which may facilitate or ease the students to perform AILR. (1) First step was ensuring the internet laboratory opened at least in the school hours. It should be completed with the schedule of use of the laboratory accommodating all classes. For the sake of the optimization of the adoption of the laboratory, the schedule of the one who takes responsibility for each session of the laboratory use was required. The officers who take responsibility for the laboratory maintenance should be prepared well. They could compose of teachers or the existing staff who is relevantly competent. The second step for increasing the AILR of the student through perceived behavioral control based approach was providing the subject matters which could widely access through internet. It could be done by providing the catalogue of relevant website addresses, relevant learning online forum and so forth.

6. CONCLUSION AND SUGGESTION

6.1 Conclusion

1) Intention use of the Internet as a source of student learning based on the average niilai fall into the strong category. Average means the student has a strong intention to make use of the Internet as a learning resource.

2) The attitude of students towards the use of the Internet as a learning resource belongs to the category of love. This means that the average student likes to use the Internet as a learning resource.

3) Students' subjective norm regarding the use of the Internet as a learning resource belongs to the category of support. This means that the average student to feel that people are important to them that in this case is the teachers, fellow students and parents to support them to make use of the Internet as a learning resource.

4) Perceptions of control student behavior associated with the use of the Internet as a learning resource fall into easy categories. This means that the average student has a perception that the use of the Internet as a learning resource can be done easily.

5) There is a significant positive relationship between attitudes and intentions regarding the use of the Internet as a learning resource.

6) There are positive and significant relationship between subjective norm and intention of the students regarding the use of the Internet as a learning resource.

7) There is a positive relationship between perception and exhibited significantly control student behavior and intentions with respect to the use of the Internet as a learning resource.

8) There are positive and significant contribution of attitude, subjective norm, perceived behavioral control on intentions regarding the use of the Internet as a learning resource.

6.2 Suggestion

1) The principal and staff need about the benefits mewacanakan AILR (Use of the Internet as a Source of Learning) among students. Pewacanaan can be through (1) printed media such as posters, pamphlets or leaflets, (2) an oral teacher as the teacher explains about the benefits AILR at every opportunity.

2) The principal and staff provide information to parents about the benefits AILR for students.

3) The principal assisted the staff do a search and collection of any sites that are relevant and worthy to be a source of learning for students.

4) The principal assisted the staff do a search and collection of online forums to learn what is relevant and worthy to be a source of learning for students.

5) The principal requires each teacher to make learning an online forum related to training that Amnestied eyes and make it as a complement to the learning resources that have been used so far in the learning process.

6) The principal and staff published the results of the search and collection of

sites and forums online learning through the library and the school bulletin board so that all students know it.

7) The teacher requires students to enrichment through the internet to any material of any eye that has been given training.

8) The principal further facilitate the students with the facilities and infrastructure that support the use of the Internet as a learning resource, such as:

  a) Dibukanya laboratorium internet paling tidak selama jam sekolah, dengan catatan bahwa fasilitas yang ada dapat dimanfaatkan semua siswa secara merata;

  b) Menjadwal secara memadai guru-guru atau teknisi yang berkompeten minimal dalam bidang internet untuk menjadi operator supaya pemanfaatan labotatorium dapat optimal;

  c) Untuk kepentingan pemeliharan dan perbaikan laboratorium dapat memberdayakan petugas yang sudah ditunjuk sebelumnya.

6.3 Limitedness of the Study

This study has the following limitations:

1) Population included only one grade from one school to the samples are not representative because it numbered 44 people. Considered a representative sample shall be 50 percent of the population, in this case is 310 people;

2) Reliability of the instrument in the average category enough;

3) Investigating the behavior of internet usage is done indirectly through the investigation of the intention to do so;

4) Research instrument that is only one type of questionnaire.

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