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EVALUATING THE ROLE OF INFORMATION TECHNOLOGY ADDICTION ON SELF- REGULATORY STRATEGIES AND ACADEMIC ACHIEVEMENT OF STUDENTS IN BANDAR ABBAS

HOSSEIN ZAINALI POUR[1], LADAN PASLARZADEH[2]

1-Ph.D, Assistant professor, Staff member of Hormozgan

(**Email: hzainalipour@yahoo.com**)

2-MA Student ofIslamic Azad University

(**Email: ladanpaslarzadeh@yahoo.com**)

ABSTRACT

This research has been conducted with the aim of evaluating the information technology addiction on self-regulatory strategies and academic achievements of the students in Bandar Abbas. Presented research is solidarity descriptive. The statistical population in this study, are all secondary school students of Bandar Abbas city from which 367 people has been selected by accidental sampling using Morgan table and. The study method is field study and the tools used are Kimberly Yang (1999) tends to Internet addiction questionnaire, Pintrich. & DeGroot (1990) self-regulatory strategies, and the first half of academic yearGPA scores in2012 and 2013. For this study data analyzing, descriptive statistic variables such as(average, SD and …)and also comprehensive statistic using Pearson correlation test and simple regression have been used. The research resulting data were analyzed using spss software system.

The results showed that there is a significant and negative correlation between the cognitive strategies and information technology. Also there is a negative and significant correlation between addiction to information technology and cognitive strategies.The results showed that there is a significant and negative correlation between the metacognitive strategies and information technology. Also there is a negative and significant correlation between addiction to

information technology and metacognitive strategies. Also according to the significant level, the research hypothesis is confirmed in all cases.

Keywords: Addiction to information technology, self-regulatory strategies, Metacognitive strategies, cognitive strategies, resource management strategies, academic progress.

INTRODUCTION

Students` academic progress is one of the most important indicators in the evaluation of education and in fact all activities in this system are to fulfillment it. In general the whole society and in particular the education system is interested and concerned about the children`s fate , their growth and successful development in the society and expects students` progress in the cognitive dimensions and the acquisition of skills and the emotional and personality dimensions (Poor Shafeyee, 1991).

Academic progress is of the topics that have been studied from educational and psychological dimensions. Various research findings show that educational progress not only is affected by scientific structures and information analysis process but also relates to the motivational factors including beliefs, ideas and values also (Besant, 1995). One of the most important principles of educational psychology is that the students must build acknowledgement in their minds, teachers can give students a ladder that leads to a better understanding, but the students themselves must go up the ladder. What identifies the relationship between self-regulatory learning and learning progress is the relationship between this type of learning strategies and skills that means metacognitive and cognitive strategies with learning progress. For a description of self-regulatory many patterns have been suggested that one of these patterns is Pintrich self-regulatory pattern:

Pintrich and his colleagues have identified three general categories of strategies that are used by self-regulatory learners that include:1-Cognitive strategies 2-Metacognitive strategies 3-control strategies and resource management (Pintrich., 2004). Undoubtedly internet and other information technology tools are of new industrial revolution Star Trek and any of them is at the peak of digital industrial revolution height. Many psychologists are doubtful if the word addiction is good to describe for the situation when people spend a lot of time using the information technology. Addiction is a phenomenon that since past, humans in different societies were familiar with it`s concept. Now with the gradual lifestyle changing in parallel with the scientific and

information technology progress and certain increase in the level of people`s awareness and consciousness, the addiction item in various fields has been born and viewed. Today information technology addiction is one of the ordinary problem and issues which refers to information technology tools incorrect usage such as internet, mobile, television and …..Accessing to this tool is a growing phenomenon and every day more people join to the users of the tool. As an example, internet and mobile are present everywhere: at home, at school, offices and even shopping centers and between the users, young adults and teens have the most usage percentage (Bullen and Harre, 2000).

As well as other addictions, internet addiction accompanies with some signs too such as anxiety, depression, irritability, obsessive or dreaming about the internet. Either by increasing the users` relations (especially children and teenagers) in unreal world, their relations with the others in real world decrease. While there would be the possibility of damaging the educational functioning too.(Samson,& Keen.2005)

Therefore this question will be raised that what is the impact of addiction to information technology on self-regulatory and students` progress?

RESEARCH METHOD

This research has been conducted with the aim of evaluating the information technology addiction on self-regulatory strategies and academic achievements of the students so according to the target it is a functional research. Presented research is solidarity descriptive. The statistical population in this study, are all secondary school students of Bandar Abbas city from which 367 people has been selected by accidental sampling using Morgan table and. The study method is field study and the tools used are Kimberly Yang (1999) tends to Internet addiction. This questionnaire is standard and its stability and reliability has been reported by Cronbach's alpha by 0/90 (According to Bahri and colleagues, 2011).

Reliability of this a questionnaire which was performed on 30 persons of statistical community, the cronbach's alpha coefficient obtained was 0/87.Pintrich.P.R&DeGroot(1990) self-regulatory: This scale designed by Pintrich.P.R&DeGroot (1990) and translated by MousaviNejad in 1997. This questionnaire includes two educational strategy scales(high level cognitive strategies, low level cognitive strategies and self-regulatory) and Motivational beliefs (internal value rating and self-efficacy and test anxiety) and contains 47 items presented in likret 5 range scale and is

the students` average score of the first half of educational year 2012 and 2013. For the research data analyzing, descriptive statistical scales such as average, SD …and inferential statistics using simple regression and Pearson test have been used. The research data obtained were analyzed by the use of spss software system.

RESEARCH FINDINGS

Respondents` demographic specifications include: age, class type, field of study and average specifications. According to data analysis %5 of respondents were in 14 age category, 11.7 % were 15 and 31.3% 16 years, 40.9% were 17 and 15.5 % of respondents also were in 18 years category. This shows that most of respondents were between 16 and 17 years old.

Also the results show that 14.7% of respondents were in first grade, 38.1% in second grade and 47.1% in third grade. Also according to the results 38.1% of respondents were studying calculating, 7.6% sewing designing, 17.7% computer and 14.4% no major. Also the average score of 32.2% of respondents were 14 and under 14 and 18.3% 15, 17.4% averages were 16, 14.7% were 17, 10.4% were 18 and just 6% of respondents` average are 19 which shows that most students are average or under average.

Theories testing

First theory:

Information technology addiction, effects on students` cognitive strategies.

The results show that from 367 answers, the mean (SD) obtained for the cognitive strategies is 3.9350(42762) that this amount for mean (SD) of information technology addiction is (84522) 1.9501.

To evaluate this theory also Pearson Correlation coefficient was used. According to the obtained results, and given significant level of (0/002) that is less than 0/05, it can be said that there is a significant and negative correlation between cognitive strategies and technology information addiction for the amount of (-0.326).

The results contain multiple value of R that measures the ratio of the changeability in Y values can be expressed by the fitted line. As here exists one variable, so it's equal with the r Correlation coefficient. As it can be seen, the value of F is meaningful and the assumption of linearity exists. But it should be noted that the results of variance analysis for regression equation validity also shows that the result is significant ($p < 0.002$).

According to the results, as it can be seen, the significant level of addiction to information technology and cognitive strategies are significant and related. In general it can be said that cognitive strategies are predictor of

addiction to information technology. Beta-sign represents the correlation between these variables.

Second theory:

Information technology addiction, effects on students` metacognitive strategies.

The results show that from367 answers, obtained average and standard deviation for metacognitive strategies variable is 3.5461 (. 41402), this value for the mean and standard deviation of information technology is 1.9501 (84522.). For this theory analyzing also Pearson correlation deviation was used. According to the following table and according to acquired significant level (0/002) that is less than 0/05, we can say that there is a significant and reverse correlation of (-161) between metacognitive strategies and information technology addiction. The results which include multiplexing R which measures the changeability level of Y values that can be specified by fitted line. Because there is one variable here, it is equal with the r correlation deviation. As it is clear, f value is significant and linear theory is stable. But it should be noted that variance analysis results for regression equation validity also show that the result is significant (P<0.002). According to the results, as it can be seen, the significant level of addiction to information technology and metacognitive strategies is significant. In

general it can be said that metacognitive strategies is predictor of addiction to information technology. Beta- sign represents the correlation between these variables.

Third theory:

There is a relation between information technology addiction and students` resource management strategies.

The results show that from 367 answers, obtained average and standard deviation for resource management strategies variable is 3.4918 (. 37275), this value for the mean and standard deviation of information technology is 1.9501 (84522.). For this theory analyzing also Pearson correlation deviation was used. According to the following table and according to acquired significant level (0/005) that is less than 0/05, we can say that there is a significant and reverse correlation of (-147) between resource management strategies and information technology addiction. The results which include multiplexing R which measures the changeability level of Y values that can be specified by fitted line. Because there is one variable here, it is equal with the r correlation deviation. As it is clear, f value is significant and linear theory is stable. But it should be noted that variance analysis results for regression equation validity also show that the result is significant (P<0.002). According to the results, as it can be seen, the significant

level of addiction to information technology and resource management strategies is significant. In general it can be said that resource management strategies are predictor of addiction to information technology. Beta-sign represents the correlation between these variables.

Fourth theory:

Addiction to information technology effects on students` educational progress.

The results show that from367 answers, obtained average and standard deviation for educational progress variable is206866 (1. 58801), this value for the mean and standard deviation of information technology addiction is 1.9501 (84522.). For this theory analyzing also Pearson correlation deviation was used. According to the following table and according to acquired significant level (0/003) that is less than 0/05, we can say that there is a significant and reverse correlation of (-0.547) between educational progress and information technology addiction. The results which include multiplexing R which measures the changeability level of Y values that can be specified by fitted line. Because there is one variable here, it is equal with the r correlation deviation. As it is clear, F value is significant and linear theory is stable. But it should be noted that variance analysis results for regression equation validity also show that

the result is significant (P<0.002). According to the results, as it can be seen, the significant level of addiction to information technology and metacognitive strategies is significant. In general it can be said that educational progress is predictor of addiction to information technology. Beta- sign represents the correlation between these variables.

CONCLUSION

Achieved results from descriptive analysis

For further understanding of research variables 'nature and detecting patterns governing on the data, at first we evaluate the results obtained from the descriptive analysis. The number of 367 girls has been chosen as sample. The results of age specifications showed that most of respondents were 17 years old with 40.9% and the youngest were 14 years old with 0.5%. Also in part of classes' specifications most respondents (47.1%) were studying in third grade and the least (14.7) in first grade. Regarding respondents 'field of study the least item was calculating (38.1%) and the least item was sewing designing (7.6%).

Regarding the average scoreit was mostly between 14 and 15 (33.2%) and the lowest percentage corresponds to 19 GPA (6.0%), respectively.

Also the results of descriptive indicators regarding the variables of study also indicated:

obtained average in addiction to information technology is1.9501, in cognitive strategies, 3.9350, in metacognitive strategies is 3.5461,in resource management strategies 3.4918 and in academic progress is also 2.6866.

This result indicates that cognitive strategies have the most average and information technology addiction has the lowest average.

DISCUSSION ON THE RESEARCH THEORIES

The main discussion of the research, is examining the role and impact of information technology addiction on students` self-regulatory strategies and academic achievement. Now we go through evaluating the research results:

First theory: Information technology addiction, effects on students cognitive strategies.

This theory refers to the effect of information technology addiction on students` cognitive strategies. To evaluate this theory, Pearson correlation coefficient and Regression test. The results showed that there is a negative and significant (reverse) correlation by (-0.326) between information technology addiction and cognitive strategies. Also regarding to the amount of (F=56.083), the research theory is confirmed. This research

results comply with Li (2008), Moich (2008) and Chalavat and Depiks (2004) results.

In explaining this finding it can be said that the cognitive strategies are mainly used in reference to mental activities such as thinking, perception and reasoning. In fact these strategies are used for simplifying learning and homework completeness and help students to prepare and store new information to combine with previous ones and storing them in long term memory. Cognitive strategies also refer to remedies which students use in learning, to understand and remember the contents. When the individual gets addicted to information technology tool, his (her) tends for interaction with others decreases that this has negative effects on individual`s personal and social interactions and consequently has significant impact on their learning.

Second theory: Information technology addiction, effects on students` metacognitive strategies.

This theory refers to the effect of information technology addiction on students` metacognitive strategies. To evaluate this theory, Pearson correlation coefficient and Regression test. The results showed that there is a negative and significant (reverse) correlation by (-0.161) between information technology addiction and metacognitive

strategies. Also regarding to the amount of (F=10.138), the research theory is confirmed. This research results comply with Moich (2008) Ionsong Hong and YootAkoobi(2006), Chavalat and Debikiz(2004), Arefi and jalali (2009), Hafezi, Eftekhar and Seyednejad(2008) results.

In explaining this finding it can be said that there are many reasons effective on increasing students 'metacognitivestrategies that some of them are programming, controlling, monitoring and reporting that the increasing emphasis on performance consequences encounters using strategies in learning lessons with obstacle. In other word, educational system which includes teaching methods, curriculum materials, training style and evaluation and scoring methodsdoes not encourage deep, coherence and creativelearning butleads students more to performance consequences, particularly the score. But addiction to information technology stops students from using learning strategies that help them for better learning, careful planning and having control over things.

Third theory: Information technology addiction effects on students` resource management strategies.

This theory refers to the effect of information technology addiction on students` resource

management strategies. To evaluate this theory, Pearson correlation coefficient and Regression test. The results showed that there is a negative and significant (reverse) correlation by (-0.147) between information technology addiction and resource management strategies. Also regarding to the amount of (F=7.738), the research theory is confirmed. This research results comply with Moich (2008), Iosoung Hong and YootAkoobi (2006), Chalavat and Depiks (2004), Arefi and Jalali (2009), Hafezi, Eftekhar and Seyyednejad(2008) results.

In explaining learning strategies, self-regulatory and its accompanying beliefs, are affected by social and physical environments. On this basis, researchers state that it is modeling and space structure are basic and simple tools through self-regulatory learning strategies should be applied so it can be said that learners themselves are learning starters and define achievable goals to get and plans, operate and evaluate what they need to get their goals independently.

Fourth theory: information technology addiction effects on students educational progress

This theory refers to the effect of information technology addiction on students` education progress and has used Pearson correlation coefficient and Regression testto evaluate this

theory. The results showed that there is a negative and significant (reverse) correlation by (-0.547) between information technology addiction and educational progress. Also regarding to the amount of (F=6.738), the research theory is confirmed. This research results comply with Samson and Keen(2005) results that shows as the continuous usage of information technology increases the connection with unreal world and decreases real connections and probably makes frailer in educational performance is accordant.

In explaining this finding it can be said that as the use of information and communication technology is effective on increasing academic motivation, strengthening research tending, promoting discussion skills, increasing scores and in general on academic progress but on the contrary addiction to this technology has verse results and not only does not make any academic progress, but also makes a drop and because most of the students `time is spent on using it, students would be unaware of the lessons and gradually drops their grades and reduces educational level.

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