A Development of an Instructional Model to Enhancing Self-Responsibility for Undergraduate Students

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Abstract: *The purpose of the study was to develop an instructional model to enhance self-responsibility for undergraduate students. The research process consists of three stages. The first stage was constructing an instructional model by analyzing and synthesizing documents in order to create an instructional model prototype, then validating the validity and reliability of the model by a focus group of nine experts. The tools used in this research were validated by five experts. The second stage was implementing the developed instructional model using One-Way repeated measured design method of action research in the second semester of the academic year 2014 in the course "System Analysis and Design" with the sample of 22 undergraduate students in the department of business computer. The third stage was evaluating the effectiveness of the model (considered by the trend of self-responsibility development) and students' satisfaction. The model's effectiveness evaluation was done through nine experts with the average at 4.68 (in the range of highest satisfaction score).*

Keywords: model development, self-responsibility, enhancing self-responsibility

Introduction

Nowadays, it is important to prepare learners to have desirable characteristics for national, economic, and social development. Office of Higher Education Commission realizes this importance and stipulates strategic plans for student development as a key for national development. (Office of the Higher Education Commission, 2007) The plan was to equip students with excellent academic knowledge and morality in order to compete with other countries in the international arena. Office of Higher Education Commission indicates desirable graduate characteristics based on the 21st century skills as follows: 1) well-rounded with systematic and analytical thinking, 2) equipped with morals and ethics, 3) knowledgeable in current social issues, and 4) self-responsible. (Bellanca & Brandt, 2010)

Currently, even though the Thai government issues wonderful educational policy, people in the society still lack of responsibility, which causes a tremendous effect on national development. Thai society lacks of self-responsible citizens and honest individuals. This deficit leads Thailand to underdeveloped society. To create a sustainable society, it is important to respect each other, understand rights and roles, and possess honesty. In order to create such a society, schools should take into consideration about their roles. Schools can help develop individuals who have the awareness of responsibility. Education is one of important factors that might be able to help our society.

As a result, developing self-responsibility should start at home and continue in the classroom. When the students realized their responsibility, they will be able to live happily in the society. This study attempts to develop an instructional model to enhance self-responsibility for undergraduate students. The instructional model will be beneficial to others as it will serve as a guideline for developing self-responsibility for undergraduate students.

Research Objectives

The research objectives were as follows:

1. To develop an instructional model to enhance self-responsibility for undergraduate students
2. To assess an effectiveness of the instructional model to enhance self-responsibility for undergraduate students
3. To have the experts certify the instructional model to enhance self-responsibility for undergraduate students

Scope of the Study

1. The population in this study is 152 undergraduate students, majoring in Business Computer, Faculty of Business Administration and Accounting, registered in the second semester in 2014.
2. The participants are 22 students from the Faculty, who registered in the course of BC3207 System Analysis and Design in the second semester in 2014.
3. The data were collected in the second semester in 2014.

Research Method

There are three steps in this study as follows: construction of the instructional model, implementation of the instructional model, and evaluation of the instructional model.

Step 1: Construction of the Instructional Model

1. Related literature on enhancing self-responsibility was reviewed. The literature was drawn from several databases, and it was analyzed and summarized into self-responsibility characteristics, which were used to as a guideline to construct an instructional model.
2. After the review of the literature, an instructional model for enhancing self-responsibility for undergraduate students was developed. The model was validated by nine experts using the focus group technique. The research instruments were also validated by five experts.

Step 2: Implementation of the Instructional Model

After the model was validated by experts, it was implemented with the participants. The research instruments consisted of lesson plans, a self-assessment form, a peer-observation form, a situational projection assessment, and a learner's satisfaction questionnaire.

Step 3: Evaluation of the Instructional Model

The model was evaluated by using a learners' satisfaction questionnaire towards the instructional model. Also, the model was evaluated by examining an increase of learners' self-responsibility score. The two evaluations were finally validated again by nine experts.

Results

This section consists of three sections as follows: a synthesis of the instructional model, an evaluation of the model, and a certification of the model. Each section is presented respectively.

1. A Synthesis of the Instructional Model

After reviewing the literature, the instructional model was developed. The model is called "PGARR Model." The model consists of five steps as shown in Figure 1.

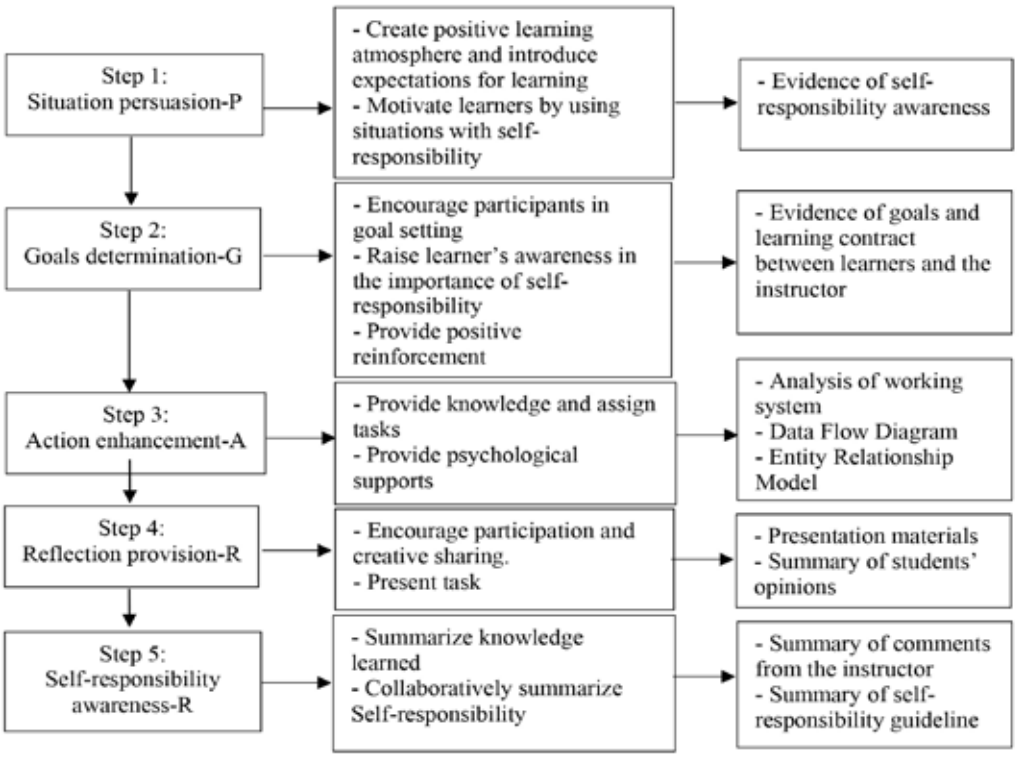

Figure 1 Steps of the PGARR Model

Step 1: Situation persuasion-P

This step serves as a preparation stage for learners. In this step, the instructor introduces a learning situation for learners in order to raise awareness and motivations for leaners to initiate self-responsibility. The results of the step are that learners are engaged, possess awareness, and have motivation to change their behaviors.

Step 2: Goals determination-G

In this step, the instructor emphasizes the determination for change of learners and supports leaners to assess their self-responsibility. It should be noted that the assessment has no effect on learners' grades; rather it is an enhancement of learners' self-responsibility. After that, the learners set goals, as a learning contract, for improving self-responsibility.

Step 3: Action enhancement-A

In this step, the instructor assigns homework and suggests learning resources for learners to complete the assignments as indicated in the learning contract. The instructor explains

the content and provides guidelines to achieve the goals. The instructor also creates positive learning atmosphere; a hybrid between controlled learning and positive reinforcement.

Step 4: Reflection provision-R

In this step, learners collaboratively reflect, share, and exchange experiences while learning. The experience consists of strengths, weaknesses, and obstacles during learning. This reflection serves as a guideline for future development.

Step 5: Self-responsibility awareness-R

In this step, the instructor summarizes strengths and weaknesses of each learner by presenting an overall work of the class. The instructor and learners collaboratively synthesize the self-responsibility guideline, complete the assessment form, and plan for future improvement.

2. An Evaluation of the Model

An evaluation of the instructional model was conducted by using two types of evidence: peer-observation scores, situational projection assessment scores, and self-assessment scores.

1. To evaluate the model, the peer-observation scores were analyzed. The scores were obtained from five peer observations. Overall, the data revealed that an average peer-observation score is 3.18 (= 3.18, *SD*. = 0.13).

Table 1 Analysis of Variance from Peer-Observation Scores

Source of Variation	*SS*	*df*	*MS*	*F*	*P*
Instructional Model	.921	4	.230	55.130	.000*
Errors	.351	84	.004		

* p < .05

As shown in Table 1, there is a significant difference on peer-observation self-responsibility scores after the implementation of the model, F (1, 84 = 55.130), $p < .05$. This means that there is a trend of development of self-responsibility of students who studied from the PGARR Model.

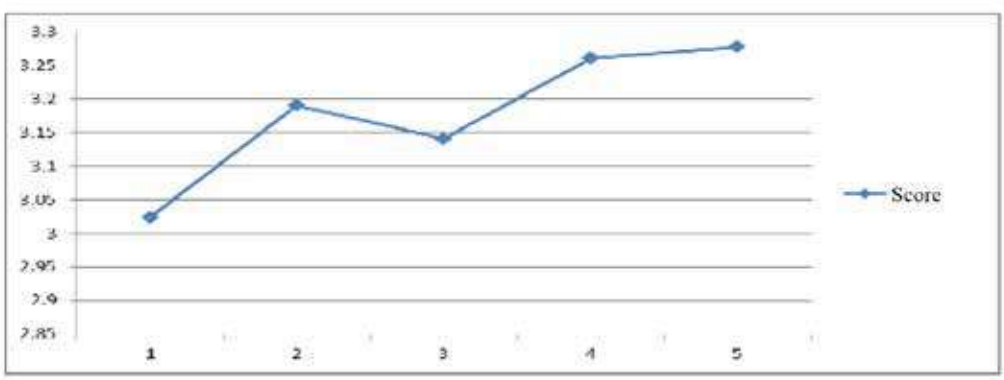

Figure 2 Average Scores of Peer-Observation

As shown in Figure 2, the Bonferroni technique was performed to compare peer-observation scores. It was found that the second average score was higher than the first and

the third average scores, so the second instruction was implemented again twice (4th and 5th times) in order to verify the stability of the model. It was found that the fourth average score was significantly different from the first, second, and third average score (p. < .05). Also, there was no significant difference between the fourth and the fifth mean scores. As a result, it can be concluded that the instructional model was stable.

2. Apart from the peer-observation scores, the situational projection assessment scores were also analyzed to evaluate the instructional model. Overall, the data revealed that an average situational projection score is 64.05 (= 64.05, *SD*. = 5.75).

Table 2 Analysis of Variance from Situational Projection Assessment Scores

Sources of Variation	*SS*	*df*	*MS*	*F*	*P*
Instructional Model	372.127	4	93.032	76.710	.000*
Errors	101.873	84	1.213		

* p < .05

As shown in Table 2, there is a significant difference on situational projection assessment scores after the implementation of the model, *F* (1, 84 = 76.710), *p* < .05. This means that there is a trend of development of self-responsibility of students who studied from the PGARR Model.

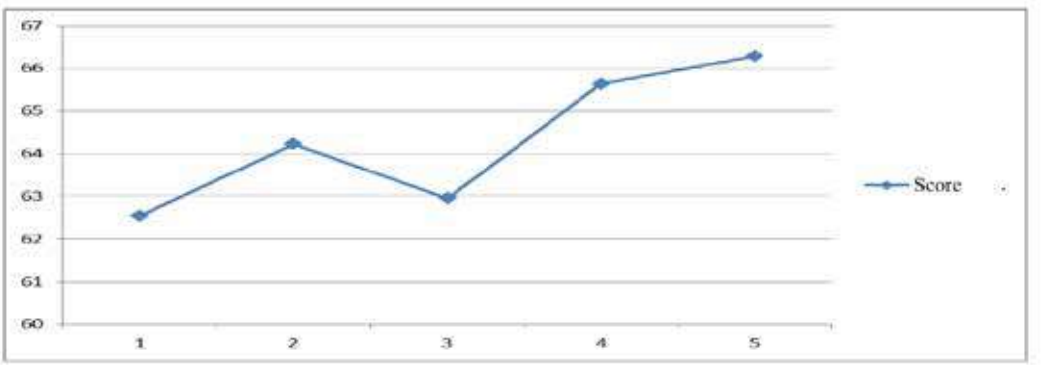

Figure 3 Average Scores of Situational Projection Assessment

As shown in Figure 3, the Bonferroni technique was performed to compare situational projection assessment scores. It was found that the second average score was higher than the first and the third average scores, so the second instruction was implemented again twice (4th and 5th times) in order to verify the stability of the model. It was found that the fourth average score was significantly different from the first, second, and third average score (p. < .05). Also, there was no significant difference between the fourth and the fifth mean scores. As a result, it can be concluded that the instructional model was stable.

3. Additionally, the model was evaluated by analyzing self-assessment scores. It was found that the mean score of this self-assessment is 3.40 (= 3.40, *SD*. = 0.10).

Table 3 Analysis of Variance from Self-Assessment Scores

Sources of Variation	*SS*	*df*	*MS*	*F*	*P*
Instructional Model	.921	4	.230	55.130	.000*
Errors	.351	84	.004		

* p < .05

As shown in Table 3, there is a significant difference on self-assessment assessment scores after the implementation of the model, F (1, 84 = 55.130), $p < .05$. This means that there is a trend of development of self-responsibility of students who studied from the PGARR Model.

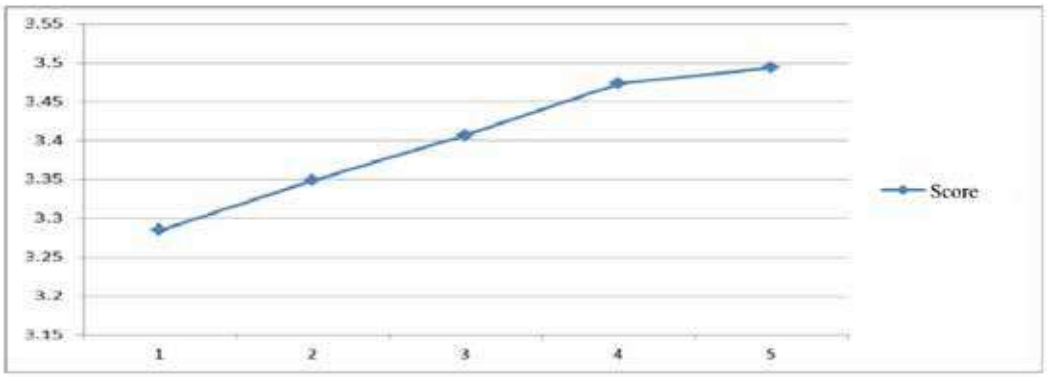

Figure 4 Average Scores of Self-Assessment

As shown in Figure 4, the Bonferroni technique was performed to compare self-assessment scores. It was found that the second average score was higher than the first and the third average scores, so the second instruction was implemented again twice (4th and 5th times) in order to verify the stability of the model. It was found that the fourth average score was significantly different from the first, second, and third average score (p. < .05). Also, there was no significant difference between the fourth and the fifth mean scores. As a result, it can be concluded that the instructional model was stable.

After taking all three aspects of the model evaluation (peer-observation, situational projection assessment, and self-assessment), a Pearson product-moment correlation coefficient was computed (see Figure 5, 6, and 7). It was found that the coefficient values of the situational projection assessment score and the self-assessment score was 0.5689. The coefficient values of the situational projection assessment score and the peer-observation score was 0.4495. The coefficient values of the self-assessment score and the peer-observation score was 0.5525.

As a result, it can be concluded that all assessment types can be used to assess learners' self-responsibility.

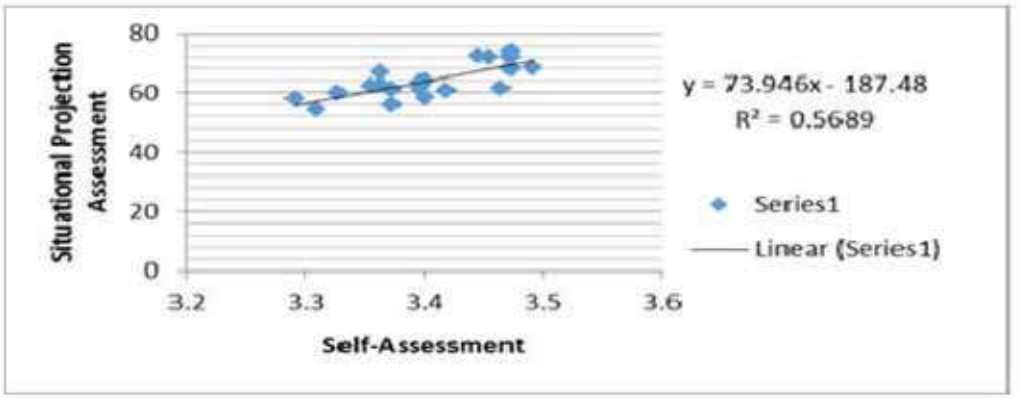

Figure 5 Relationships between Situational Projection Assessment and Self-Assessment

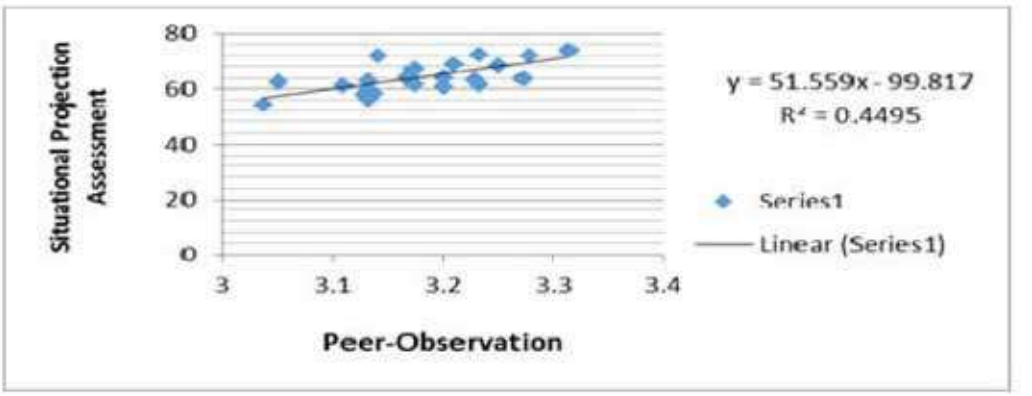

Figure 6 Relationships between Situational Projection Assessment and Peer-Observation

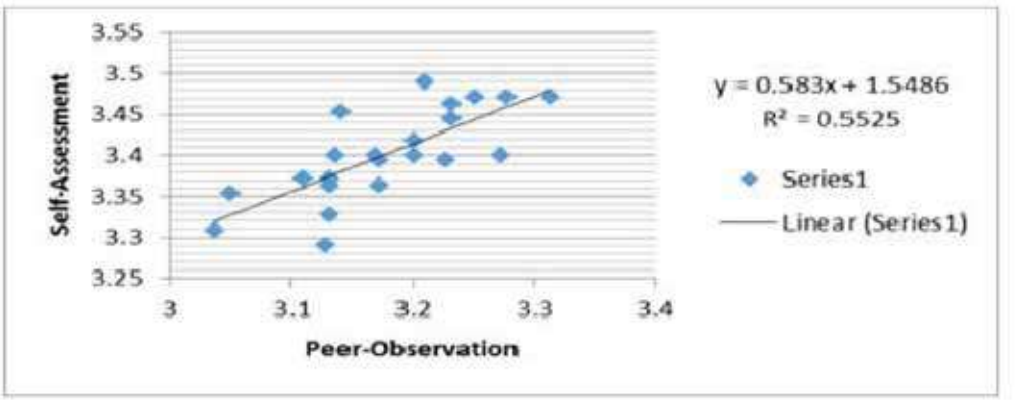

Figure 7 Relationships between Self-Assessment and Peer-Observation

3. Certification by Experts of the Instructional Model

The data obtained from nine experts revealed that the average scores of the model approve was 4.68 (= 4.68, *SD*. = 0.27), which means that the model is certified.

Discussions

Based on the results, the discussions were as follows:

1. The instructional model to enhance self-responsibility for undergraduate students was effective and appropriate. The model starts with raising awareness of learners about the importance of self-responsibility. After that, the instructor reinforces the awareness. As for the model effectiveness evaluation, this model was effective because the model was systematically developed based on theories and revised based on experts' comments. After the implementation of the model, there are several issues to consider.

1.1 In Step 1 (Introducing Situation-I), the instructor introduces a learning situation for learners in order to raise awareness and motivations for leaners to initiate self-responsibility. The results of the step are that learners are engaged, possess awareness, and have motivation to change their behaviors. After the implementation of the model, it was found that learners were engaged in discussions on the topics. This reflects that learners were aware of the importance of self-responsibility and creates moral decisions to take responsibility for themselves.

1.2 In Step 2 (Setting Goals-S), the instructor asks learners to assess oneself, which is consistent with the theory by Schunk and Zimmerman (1994). The most important point in self-assessment is the awareness of one's action, and the action is resulted from setting goals. This study revealed that after each learner conducted self-assessment, they were willing to take responsibilities for their learning. This finding was consistent with previous studies (e.g., Bandura, 1986; Kuhl & Kraska, 1994; Zimmerman, 1994). Self-observation would not take place unless learners became aware of their actions.

1.3 In Step 3 (Enhancing by Action-E), the instructor assigns homework and suggests learning resources for learners to complete the assignments as indicated in the learning contract. The results in this study found that learners accepted the learning contracts and acted accordingly. They also helped each other and constantly participated in their learning. They accepted their learning mistakes, and they learned based on their best capabilities. This finding was consistent with the social learning theory by Bandura (1986).

1.4 In Step 4 (Providing Feedback-P), learners collaboratively reflect, share, and exchange experiences while learning. This reflection helps learners open their mind and listens to others' opinions in order to improve oneself (Elkind & Sweet, 1997).

1.5 In Step 5 (Summarizing Self-Responsibility-S), the instructor summarizes strengths and weaknesses of each learner by presenting an overall work of the class. This step was consistent with Chaloem Fuckon (2007). The summary of learning emphasizes learners to take responsibilities for their learning. The instructor praised learners who were responsible for their learning.

2. Discussions of the results of the model implementation

2.1 Generally, the characteristics of learners, majoring in Business Computer, were attentive in current social issues. They are on updated information online. They love learning by doing rather than by learning from theories. Therefore, instructors should bring current issues that learners are interested to integrate in the lessons in order to support self-responsibility.

2.2 The nature of the course was applying theory into practice. In the beginning of the model, learners were frustrated, so the instructor should reduce this frustration by creating a collaborative learning environment, asking learners to share, and providing psychological supports in every step of the model.

2.3 The strength of the model was that it is a step-by-step approach of raising learner's awareness about the importance of self-responsibility, practicing self-responsible assignments, and summarizing learning experience. The limitations of this model were time and speed of the implementation.

2.4 Learners agreed that the model could enhance the awareness of self-responsibility for learners. The average perception was 4.21.

Recommendations

This research provides the following recommendations:

1. The model should be implemented continuously in order to enhance self-responsibility of learners in courses such as the ones with assignment. The assignments should be continuous so that it created habits for learners.
2. The roles of the instructors are important. The instructors are there to motivate students to take charge of their responsibility and to provide psychological supports.
3. The challenge of this model is peer collaboration. There are some learners who are bored with group work. The instructor should mentor or coach learners of how to conduct successful group work.
4. The instructor should provide ample time for practice self-responsibility both inside and outside of class.

Recommendations for Future Research

1. Future research should examine effects of the instructional model to enhance self-responsibility in other subjects.
2. Future research should investigate factors to enhance self-responsibility and analyze the most effective factors.

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