



A Model to Assess Student's Responsibility Consciousness
at University of Technology and Education
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Abstract

By observing learning behaviors of student at HCMC - UTE, we recognize many inappropriate behaviors such as absence from school, being late in class, not submit report on time, copy the report, and so on which lead to bad academic performance of the student. These phenomena show that the students lack of learning responsibility consciousness. This paper proposes a model which was used as a tool to assess the student's responsibility consciousness. Observing results show that consciousness is always related to actions and throughout actions too. Learning responsibility consciousness assessment includes three main parameters : consciousness, actions, and attitudes of student in learning.

Keywords : Consciousness, Responsibility Consciousness, Learning Responsibility

INTRODUCTION

With the rapid development of science and technology, education teaches people not only about knowledge, but also about the use of technology and the ability to adapt to change which is life skills. According to the World Health Organization (WHO), life skills are adaptive and positive behaviors which allow individuals to deal effectively with demands and challenges in everyday life.

The four pillars of education proposed by UNESCO in 1996 are “learning to know, learning to do, learning to be, and learning to live together” that means educate people knowledge, skills, positive attitude, proactive innovation and proper reactions in their social interactions. In particular, three of the four pillars are about



life skills which help people have ability to adapt to meet necessity social changes. In addition, UNESCO also offers twelve basic living values being: Peace, Respect, Tolerance, Honesty, Humility, Cooperation, Happiness, Love, Responsibility, Simplicity, Freedom, Unity, that people need to be taught because living values are core basis forming life skills.

In the context of globalization, international integration of culture, economics, people always put themselves in the situation to choose the value of life, especially young people who easily affected by positive and negative factors. Therefore, updating and completing the values are required in the modern life. Young generation who is responsible for creating and deciding the world need to be educated in order to realize what is the correct and essential value for sustainable development. Responsibility is one of the important living values. To have peace people have to be responsible to create it and have sense of environment conservation. To have happiness individuals have to take responsibility for themselves, for the relationships and the community. To have tolerance they have to understand themselves and others in specific circumstances. Consequently, responsibility is not only a condition but also an allowance to achieve what they want.

Educating life skills and living values in the process of holistic education programs is currently highly considered. According to dispatch 463/BGDĐT-GDĐT about guiding the implementation of educating life skills in Pre-school, General education school and continuing education center of Ministry of Education and Training, this becomes a key task in education not only about knowledge but also in the training life skills. Moreover, students were also interested in practicing these skills through social activities and lessons integrating values and soft skills. Career responsibility is indispensable to future engineers because it is required to help them succeed. Students will be trained through learning activities to achieve it. Therefore, the current program requires students to take responsibility for learning first.

Things start from perception. The sense of responsibility is the value which appears inside the entity, and the action is shown outside. Consciousness of people is always associated with action, through activities to assess the inside (Consciousness). How to evaluate the sense of responsibility? Does right Consciousness lead to right action?



By observing learning styles of student at HCMC - UTE, there are many inappropriate behaviors such as absence from school (30%), being late in class (15%), not submit report on time (20%), copy the report (40%), and so on, which lead to bad academic performance of the student. With such phenomenon, is it caused by the lack of learning responsibility consciousness of student? The aim of this paper is to build a responsibility consciousness assessment model, which help to have a scientific fundament tool for the assessment.

FUNDAMENTAL THEORIES

A. Responsibility consciousness

A conscious is reflection ability into people's mind about reality. This is the way how people realize about things and phenomena to assess behavior of human beings. That process starts from understanding (knowledge) to identify objects, review, valuate and select attitude through action.

Author Khanh. L. H. considers consciousness as an awakened state. It is a condition which people perceive things clearly, including four functions: sensing, reflecting, evaluating, and direct observing [2, page 24]. The function of consciousness helps people face and orient towards nature and society.

- Sensing function helps people to identify things, to answer the question "What is it?" This explains a matter of human knowledge about the phenomena and society.
- Reflection function is about learning things by applying them, linking knowledge into activities to reconsider, analyze and finally adapt them.
- Evaluating function deals with the question "How would it be to me?" by considering things in relation to ourselves, through the feeling expression as excited, happy or bored, to decide to accept or reject, to continue or cancel, etc.
- Direct observing function is the ability to observe, personally sense and understand things and the people, to have conclusion on those objects and overlooking the inner meaning of things. The four functions of consciousness are also considered as a process of cognition. The process starts from receiving information and understanding of subjects then applying and reviewing them within personal compatibility and ultimately concluding back about things.



According to activity psychology, consciousness has the following structure :

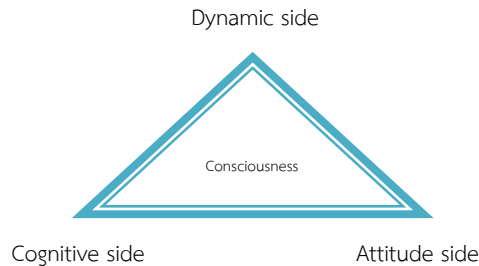


Fig. 1. Structure of consciousness.

Basically, consciousness has three sides: cognition, attitude and dynamic.

- The cognition : help people understand and have an overview of things and phenomena. This is a core important part of consciousness which helps explaining, judging results, selecting or planning for proper behaviors.
- The attitude : show subject's attitude, emotion to things and phenomena.
- The dynamic : control and adjust human activities, causing these activities consciously. It is the process of applying knowledge in adapting, and improving ourselves.

Therefore, a conscious person must be able to achieve all three side of consciousness, which are having right Consciousness, right action and positive attitude and be able to adjust his/her actions. The sense of responsibility is: having Consciousness of the duties and tasks, assigned functions and be able to complete those tasks, duties and functions.

B. Assessment models

In education, there are two common models to evaluate the Consciousness and change of individual cognitive capacity. They are Bloom's Taxonomy of Benjamin Bloom and CBAM (The Concerns Based Adoption Model).

Bloom's taxonomy of Benjamin Bloom

Benjamin Bloom (1913 - 1999) - the American psychologist, in 1956, he published the book Cognitive taxonomy, according to Bloom, there are 6 cognitive

levels in the following ascending order from simple to complex, from the lowest level : From Knowledge - the ability to recall after students received information, such as : definitions, technical terms, listing events,..etc to the highest level - Evaluation - the ability of learners in reviewing, selecting and assessing problems. This scale is presented in Fig.2 below:



Fig. 2. Bloom's taxonomy. (1956)

Comments:

Bloom has introduced the Consciousness level from low to high in a clear and specific way, and therefore the model is easy to use. It is appropriate to use in designing the curriculum, learning objectives, planning assessment, and particularly in the development of assessment tools which evaluate the behavior of people and learning ability through their Consciousness level. Although the model is still applied very popular, but there are still some limitations:

- Just measurement of perception, not yet mention the capacity of skill implement;
- The level of synthesis and evaluation are difficult to separate, they are simultaneously done rather than hierarchical listing, or before/after consideration;
- In modern society trends, the creativeness is considerable an important components of the capacity that still missing in Bloom's taxonomy;
- And Bloom's taxonomy has not yet shown how to switches from low to higher levels.



CBAM model (The Concerns Based Adoption Model)

CBAM model was developed at the University of Texas - Austin, this is the model of the cognitive adaptation which is a cognitive described framework and given guidelines to change the human capacity. This model is very well known for describing the changes of each individual and the states of changes. CBAM is introduced by: Shirly Hord, Gene Hall and colleagues (1987), this model was mentioned in the document "Taking Charge of Change". Two highly noted components that CBAM mentioned were :

- The Stage of Concern : 7 states of concern in the process of change are represented in Table 1: describe and explain the level of Consciousness in the lowest level - starting to concern and highest level of the process of change - the perception that can make things better.
- The Levels of Use : 8 behaviors described actions occur within a certain change in the level of use is shown in Table 2.

Table 1. Typical Expressions of Concern about an Innovation of CBAM

Stage of Concern	Expression of Concern
6. Refocusing	I have some ideas about something that would work even better.
5. Collaboration	How can I relate what I am doing to what others are doing?
4. Consequence	How is my use affecting learners? How can I refine it to have more impact?
3. Management	I seem to be spending all my time getting materials ready.
2. Personal	How will using it affect me?
1. Informational	I would like to know more about it.
0. Consciousness	I am not concerned about it.



Fig. 3. Constructing Process.

Table 2. Levels of Use of The Innovation : Typical Behaviors of CBAM

Levels of Use	Behavioral Indicators of Level
7. Renewal	The user is seeking more effective alternatives to the established use of the innovation.
6. Integration	The user is making deliberate efforts to coordinate with others in using the innovation.
5. Refinement	The user is making changes to increase outcomes.
4. Routine	The user is making few or no changes and has an established pattern of use.
3. Mechanical	The user is making changes to better organize use of the innovation.
2. Preparation	The user has definite plans to begin using the innovation.
1. Orientation	The user is taking the initiative to learn more about the innovation.
0. Non-Use	The user has no interest, is taking no action.

Comments:

CBAM is a highly appropriate research model for describing the change of people when they learn about a new thing and the stage of their changing process. This model refers to both cognitive and skill changes, and changing process of them. However, CBAM is a complex model, describing system including many components.



Besides, the model has not yet indicated the way to implement changes as well as not yet referred to the learning styles of students.

CONSTRUCTING ASSESSMENT MODEL

A. *Constructing process*

Fig.3. Constructing process

1) Identify the social context

- Currently in the society of rapid changes, cultural diversity and economic integration, students have many opportunities as well as challenges and are facing many choices. To get advance with sustainable development, students are required to be fully aware of what is the correct value for their appropriate choice. Thus, students need to understand exactly about the problem or the job they are doing. Therefore, the required knowledge acquirement level of the students is not just stop at knowing but understanding.

- A trend in approach of the current education is performance. Thus, the capacity of the students is evaluated by the results of the work, have products created and able to explain the processes and relationship of the product's parts. This means that students must have capacity of applying learned knowledge.

- Under the knowledge economy where human knowledge and the development of science and technology are key contributors to the economic development, innovation is always considered as high prioritize. Thus, students must be trained and practice to creativeness to meet the development of the society.

2) Determine assessment objectives

The goal of the model is to assess the sense of student's learning responsibility conscious. From the discussed psychological basis, the evaluation of a sense of responsibility must be considered in three aspects: (1) students are needed to understand their responsibility in learning, to answer questions such as: why do they need to learn, what should they learn, how would they learn? etc. (2) knowledge of the students must be expressed through the activities with a positive attitude, self-discipline; student should able to evaluate themselves. (3) Students should be able to adjust their own behavior, have ability to reflected learned knowledge into their work, which is the implementation of learning activities.



3) Developing Assessment Model

a) Theoretical fundament

From discussion presented in Part II, this article is based on Bloom' taxonomy model and CBAM model. Bloom's and CBAM models are compatible with the following :

Table 3. Bloom's and CBAM Models Compatible Comparison

Bloom's taxonomy	CBAM stage of concern	Level of use CBAM	Explanation
6. Evaluation	6. Refocusing	7. Renewal	Learners have the ability to give comment, evaluate, and select the optimal solution
5. Synthesis	5. Collaboration	6. Integration	At this level, learners are capable to cooperate, define the relationship of the components
		5. Refinement	
4. Analysis	4. Consequence	4. Routine	The learner has the ability to apply and handle information
3. Application		1. Mechanical	
2. Comprehension	3. Management	2. Preparation	Learners have the ability to explain certain problem, answer the question: Why?
	2. Personal		
1. Knowledge	1. Informational	1. Orientation	At this level, learners are able to identify information but not apply them.



Bloom's taxonomy indicates the level of people's Consciousness (in knowledge), CBAM model indicates the changing status in Consciousness and behavior at every level of operations. Through the two models, it can be seen that the process of forming learners' cognitive is developed through three basic stages: identification - treatment - evaluation to make be better and better. In these models, the authors may have the same understanding or having a coincidence that match the Consciousness level and the functions of consciousness: from the perception (sensing), manipulate, analyze (reflection), synthetic evaluation (assessment, and discussion).

b) Principle of Developing Assessment Model

From the above analysis, the model is built on the following principles:

- Consciousness includes three components: starting from understanding, to the implementation and positive attitude - the attitude is expressed through self-evaluation, self-adjustment ability of learners or better achievement.
- Consciousness is always associated with learning activities, and used these activities to assess consciousness. Thus, through the knowledge application levels of student (the level of performance at work) we can assess students' understanding.
- Learners are required to understand their assigned worked. Therefore, to form the good working attitude, the lowest level of Consciousness is understanding.
- Conscious creativity of students is shown in their working adjustability do better.

c) Proposed assessment model of the student's learning responsibility consciousness

Assessment model of the student's learning responsibility is shown in Table 4:



Table 4. Assessment Model of the Student’s Learning Responsibility
Consciousness

Operation Level	Consciousness Level	Explanation
3. Doing in a better manner	3. Evaluation	Learners understand and have the ability to adjust to better perform their tasks. Have high level of responsibility, and creative capability.
2. Just doing	2.Implementation	Learners understand and able to perform their learning tasks
1. Not doing	1. Understanding	Learners do not know about their academic responsibilities, or have knowledge but not having enough motivation turn it into application or even apply knowledge at a low level.

d) Model implementation

It can be concluded that the corresponding understanding of students is linked from their levels of learning activities. Normally there are two trends: (1) Students understand and act properly with academic responsibilities, this is a positive correlation; (2) Students understood but did not act equally to their understanding. They can understand but may be the impact caused by certain circumstances is not large enough to motivate their required activity. This also means that the knowledge comprehensive status of these students is only at a low level.

CONCLUSION

Based on the fundament of psychological theories and cognitive models, the study has determined a model to assess the student’s learning responsibility conscious.



The assessment model has only introduced three cognitive levels corresponding to the levels of student's activities. As sense of responsibility of student are related to their spiritual characteristic aspects, therefore, the level of assessment for learning responsibility is suggested to include the analysis and synthesis parts of these inner natures.

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