**Development of an Online Cognitive Evaluation System**

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**Abstract**
Undergraduate study is an one basically to our job. If we can choose the best and fit for our behavior, it will be the best to develop highly cognitive skill to prepare for a job in the future too. This research to development of an online cognitive evaluation system for high school students to find out what ability behind them for guide the suitable way to university. Cognitive question items were chosen from 3 fields; 30 items from emotional Intelligence of Daniel Goleman, 30 items from tests of cognitive abilities of Woodcock-Johnson and 30 items from multiple Intelligences of Howard Gardner. The system was made by web application, collecting data by interview using semi-structured technique of a focus group discussion from the 7 experts; 2 computer programmers, 2 evaluation and measurement lecturers, 1 software analysis designers, 1 psychologist and 1 high school teacher. We found that the average of IOC of the system is 0.87

Keywords: Online cognitive evaluation system, Web application
Introduction

Many high school students don't have much time to spend in what they love or what they want to be in the future. When the time that they must go to the university come, some of them can not choose the best field which fit their ability to study. This will be a big problem in their university life even in work life in the future. So if the high students have chance to know their abilities, it will be better for preparing their life with the way that they love.

The online cognitive evaluation system is a norm-referenced measure of cognitive ability based on 3 kind of abilities: emotional Intelligence, cognitive abilities and multiple Intelligences. This system was designed to measure cognitive processing abilities which important to the future of our students and they can access the system easily everywhere and everytime by web application.

Objectives

To develope and find out the IOC of the online cognitive evaluation system.

Participants and course settings

A group of 200 twelve grade students of Ubon Ratchathani, Thailand Chosen by the purposive sampling.

Methodology

Researchers used Appserv that component Apache Web server, PHP Script Language, MySQL DataBase Management System and phpMyAdmin Database Manager to developed the system (figure 1)

Figure 1 : An Online Cognitive Evaluation System
Researcher used cognitive question items which were chosen from 3 fields; 30 items from emotional Intelligence of Daniel Goleman, 30 items from tests of cognitive abilities of Woodcock-Johnson and 30 items from multiple Intelligences of Howard Gardner (figure 2). And collecting the data of improving the system by interview, using semi-structured technique of a focus group discussion from the 7 experts; 2 computer programmers, 2 evaluation and measurement lecturers, 1 software analysis designers, 1 psychologist and 1 high school teacher.

Figure 2 : Emotional Intelligence Questions
Figure 3: Cognitive Abilities Questions

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<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
<th>Not Answered</th>
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<td>1. What is your favorite color?</td>
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<td>2. Do you prefer reading books or watching TV?</td>
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<td>3. Are you good at solving math problems?</td>
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<td>4. Do you like playing sports?</td>
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<td>5. Are you a good listener?</td>
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Figure 4: Multiple Intelligences Questions

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Results

After a focus group discussion from the 7 experts we found that the average of IOC of the system is 0.87. Almost all the suggestion from the experts, they want the system get easy to access and have easily interface for using also.

Figure 5 : analysis result of emotional intelligence and cognitive abilities.

Figure 6 : (continue web page) analysis result multiple intelligence.
Conclusion and Suggestion

The first step to let students know their truly abilities will be the valuable beginning of basic study in university because if students can know what should be the way that they choose go for their future, it will be good to use the most ability that they have. It is suggested that further study choose prepare for non online system also because some area of rural can not access the internet.
References


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