Research Paper Education

Construction and Standardisation of Attitude Towards web Based Course Scale

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ABSTRACT

The paper reveals the details of the construction and standardization of Attitude towards Web Based Course Scale for adolescents. Attitude towards Web Based Course refers to the feeling/view of individual student towards web based course. The scale initially consisted of 30 items. After review and evaluation of statements by the experts items were reduced to 25. The 20 items were retained in the final draft of the scale after item analysis. The test-retest reliability of the test was found to be 0 .80. Content validity was calculated and scale developed was found to be valid.

KEYWORDS web based course, attitude towards web based course

Introduction

The rapid advancement of technology has transformed the conventional classrooms into virtual classrooms in which interaction is not only much quicker and two ways but there is great improvement in the quantity and quality of course delivery. It has resulted in a new paradigm of teaching and learning. Multimedia technology has now become a powerful tool for our educational experience (Ambron, 1990). Implementing this technology will give the educators a chance to motivate the learners, stimulate their interest and encourage different and various ways of learning (Messer, 1999). Such technologies are not a threat, but rather, they present a good opportunity for education (Falk & Carlson, 1992). Out of various technologies used in the teaching –learning process, the mode of instruction through web has become a world phenomenon. Web based instruction which has infused many aspects education. The web is claimed to be one of the most powerful tools for providing teachers and learners with necessary conditions for independent and interactive learning (Le and Le, 1999).

Web based instruction can be web based direct instruction (WBDI) and web based indirect instruction (WBII). Considerable evidence exists that support that web-based direct instruction (WBDI) or web-based indirect instruction (WBII) promotes students' achievement as compared to the conventional mode of teaching. Studies of (Miller, 2000; Manuel, 2001; Manathunga, 2002; Ryan, 2000; Jonassen, 2000; Matuga, 2001; Serban, 2000; Tam, 2000; & Kaur & Kaur, 2013) support that WBI either WBDI or WBII promote students' learning outcomes and elevate the motivation level of students as compared to the traditional classroom instruction. Both WBDI and WBII instructions provide highly structured, flexible and interactive content of the course.

As web based courses engage students in meaningful interactive dialogue and promotes learning outcomes in psychomotor and cognitive domain and concept clarity, it is essential that students must have positive attitude towards web based course. Attitude is the degree of positive or negative effects associated with the some psychological object (Edwards, 1969). Attitude towards web based course is affected number of factors like students' internet savviness and experiences**,** their familiarity with the browsers, search engines, web based tools, their attitudes towards the WWW. When students expressed high level of satisfaction with the course and improved confidence then their attitude towards WBC increases (Hislop, 2000); Richardson and Price, 2003; and Taylor and Mohr, 2001). Bee and Usip (1998) observed different attitudes of economic students towards web based instruction and concluded that most students preferred web based instructions and showed a positive attitude towards web.

It is not necessary that all the students are satisfied with the web based course. Some students describe their learning experience as rewarding but challenging, others are overwhelm with the need of relying on themselves (Howland and Moore, 2002). The studies of Oliver and Omari (2001) and Lawless (2000) have also reported that students did not develop a significant positive attitude toward WBC because the course requirements were very challenging and time consuming.

As web based instruction is resurging the classroom instruction, there is need to understand attitude of students towards web based course. After a thorough scrutiny of the available literature and tools, it was felt to measure attitude of students towards web based course when taught through web based instruction. Thus, five-point Likerttype Attitude towards Web Based Course Scale for adolescents was constructed and standardized in three phases: Planning Phase, Construction Phase and Standardization Phase.

Methodology

The details of the steps or phases followed in the construction and standardization of the scale have been discussed below:

PLANNING PHASE

The following points were taken into consideration during the planning phase:

- Whom to administer?
- What to measure?
- Stage of test administration?

On the basis of above mentioned aspects, identification of items was done. After reviewing the literature from various sources such as books, journals, dissertation abstracts, websites, e-journals & e-books, items for attitude towards web based course scale for adolescents were selected.

CONSTRUCTION PHASE

The construction phase involved preparation of item pool (preliminary draft), editing of items, try out of the draft, item analysis, preparation of final draft and scoring procedure.

Preparation of item pool (preliminary draft)

On the basis of literature a preliminary draft of 30 items were prepared. On the cover page of the test, the instructions were written for the respondents:

Editing of the items
Preliminary draft of 30 items was analyzed by experts to examine the relevance of areas, item difficulty, language accuracy, clarity and ambiguity of the items. Keeping in view their judgements and suggestions, 5 items were discarded. In this way, a pool of 25 statements was finalised.

Try out of the scale
The tryout of the scale was carried out on a group of 100 adolescents selected randomly. The data collected was noted down for the purpose of item analysis.

Item Analysis:
In order to make selection of items objectively and scientifically, item analysis was done. Item analysis is the process to evaluate the effectiveness of items in a test by exploring the examinees' responses to each item. Item analysis is a strategy for attitude and opinion scale development and reduction (Edwards, 1957).

In this study, Edwards' (1969) procedure of item analysis was adopted. The high and low groups were formed by taking 25 percent of the total sample subjects who obtained the highest scores and 25 percent of the total sample subjects who obtained the lowest scores, respectively. The high and low groups were 'criterion groups' to evaluate the individual statements (Edwards, 1969). A mean score is calculated for each item. A t-test for the equality of means is applied to find significant differences between the means of high scorers. 't' value equal to or greater than 1.75 indicates that the average response of the high and low groups to a statement differs significantly. The required number of statements with high 't' value will con- stitute the attitude scale (Edwards, 1969).

Final Draft
The obtained 't' value equal to or greater than 1.75 indicates the average response of high and low groups to a statements differ significantly. On the basis of this, 20 items were retained having't' value more than or equal to 1.75.

Scoring of the items
Degree of agreement or disagreements with each statement on five point continuum range from strongly Agree, Agree, Neutral, Disagree and Strongly Disagree with respective weights of 5, 4 3, 2, and 1.

STANDARDIZATION PHASE
Reliability of the scale: A scale is reliable when it gives consistently the same results when applied to the same sample. The scale was introduced to 50 respondents of non sample area. The reliability co-efficient of the scale was determined by test –re-test method and came out to be 0.80

Validity of scale:
As the content of the scale was thoroughly covered through literature consultation and experts opinion, it was assumed that the scale measures what it is intended to measure. Therefore, the scale is taken as a valid measure of the desired dimension.

Conclusion:
The scale constructed in the present study is valid and reliable and can be used in future researches

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