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The relationships between students' evalautions of teaching behaviors and self efficacy Beliefs

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Abstract

Students' evaluations have been linked to the important academic outcomes such as achievement and satisfaction. However, its effect on self efficacy is unknown. The primary purpose of this study was to adopt The Course Experience Questionnaire (CEQ) to Turkish, and to determine which aspects of teaching behaviors are more closely related to students' self efficacy beliefs. The sample was 586 students in department of Education. There was a significant correlation between self efficacy and students' evaluation, and the self efficacy beliefs were most closely related to good teaching and teacher's ability to organize instruction in a clear way.

Keywords: Students' evaluations; self efficacy; ceq; teaching quality; teaching aspects.

1. Introduction

Numerous studies conducted to define and untangle the relationship between teacher behaviors and student learning. These studies provided strong support for the relationship between students' evaluations and student learning (Enwistle & Ramsden, 1983), achievement (e.g., Cohen, 1987; Marsh, 1987), motivation (e.g., Howard & Maxwell, 1980), students' approaches to learning (e.g., Karagiannopoulou & Christodoulides, 2005; Kreber, 2003; Ramsden & Entwistle, 1981), self reported development of generic skills (Lizzio, Wilson & Simons, 2002) and student engagement (Richardson, Long & Woodley, 2003).

In spite of the prevalence of the studies on the topic, a vast majority of the studies were conducted either in North America or countries that have similar cultural practices such as Australia. Only within last decades validation of such instruments in the cultures with different educational characteristics such as Ireland (Byrne & Flood, 2003) and Chine (Marsh, Hau, Chung & Siu, 1997) provided supportive evidence for the generalizability of the reliability and validity results of these instruments to other cultures.

Nevertheless, as Collins (2002) has pointed out, although international studies report a high rate of usage of students' evaluations by the institutions (around 75%), the absence of similar studies does not permit to compare the results to evaluate the utility and validity of students' evaluations for college students in Turkey.Yet, since Collins'

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remarks only a sparse of the studies published regarding students' evaluations and their effects in. Therefore, the primary purpose of the current study was to adopt The Course Experience Questionnaire (CEQ) to Turkish, which is one of the most widely used instruments to measure the quality of teaching in a course (Wilson, Lizzio & Ramsden, 1997). The numerous studies supported the validity and reliability of the instrument (e.g., Ainley & Long, 1994; Byrne & Flood, 2003; Ramsden, 1991; Wilson et al., 1997).

Although research supporting students' evaluations' effect on important academic variables facilitating learning such as approaches to learning is abundant, the extent and generalizability of this effect to other motivational variables such as self efficacy beliefs has not been studied. A limited number of study designed to determine the most important aspects of teaching quality reported that most efficient teachers are often also the most successful ones in making the course content valuable (e.g., Young & Shaw, 1999). Therefore, it is expected that students' evaluations should also be related to the students' self efficacy beliefs since numerous studies linked value of the content to the self efficacy beliefs (e.g., Bong, 2001). The second purpose of this study was to test this hypothesis.

Although students' evaluations of teaching quality is important in determining students' behaviors, the effect of different aspects of the teaching should not be considered as the same across different academic outcomes since teaching is defined as a multidimensional construct (e.g, Marsh and Roche, 1993). Therefore, different aspects might have differentiated implications for different academic outcomes. The final purpose of this study was to determine the relative importance of different aspects of teaching in predicting students' self efficacy beliefs.

1. Method

1.1. Participants

The sample consists of 586 students (369 female and 217 male) attending to different programs in the department of Education in Pamukkale University during 2007-2008 spring semesters. There were 185 freshmen, 120 junior, 137 sophomores, and 141 senior. Three of the students did not report their class level.

1.2. Materials

1.2.1. The Course Experience Questionnaire (CEQ)

The CEQ was initially developed by Ramsden (1991) in order to measure the quality of teaching in a course. The original instrument consisted of 30 items represented five different aspects of quality teaching; good teaching, clear goals and standards, appropriate workload, appropriate assessment and emphasis on independence, and the validity and reliability of the instrument was established testing over 65.000 students (Ramsden, 1999; Wilson et al., 1997). The scale was shortened by Ainley and Long (1994), where emphasis on independence scale was replaced by a generic skills subscale. In the current study, the shortened version was used since this version of the scale is more often cited as the most valuable and reliable version of the instrument in recent studies (Wilson et al., 1997; Lizzio et al, 2002).

1.2.2. Self efficacy and course value

Students' self efficacy beliefs and course value were measured with some changes in wording to adjust study's purpose by the related items of MSLQ, which is developed by Pintrich, Smith, Garcia and McKeachie (1991) and adapted to Turkish by Büyüköztürk, Akgün, Kahveci and Demirel (2004). In the current study, internal reliability of self efficacy and course value were .93 and .90, respectively.

1.3. Procedure

The permission to use the instrument was obtained from the author. Then, the questionnaire items were translated to Turkish and back translated to English by two researchers who were not part of the study; however, were both experts in the area of students' learning and fluent in English. The items were pilot studied with 200 students. Based on pilot data some modifications mostly related to wordings were made. Actual data collection started right after first exam and completed right before final exam, when students had not known their final exam scores as it is

typical in the literature. During the initial data collection phase students were instructed to rate the appropriateness of each statement for an instructor of their choice, who might be considered as the best, worst or average in terms of teaching skills; however, whom they have sufficient experience to be able to judge her/his instructional behaviors on a 5 point Likert scale. Data was recollected three weeks later for reliability purpose with the same directions.

2. Results

Three sets of validity to establish the psychometric features of the instrument were exploratory factor analysis, confirmatory factor analysis and concurrent validity analysis. First, factor analysis using principal component extraction with an oblique rotation was used. Selecting factor loadings only greater than .4 for interpretation (Kaiser, 1974) indicated that there were 4 underlying factor. Close examination of the data revealed that all four of the appropriate work load items loaded on appropriate assessment subscale. Since previous studies defined similar complexity with work load items (see Wilson et al., 1997), these items were excluded from subsequent analysis. Remaining 19 items resulted a four-factor structure in the expected direction with items loading the appropriate subscales, which explained 71.78% of the variance.

Second, confirmatory factor analysis was performed to determine the appropriateness of a 4 factor structure of CEQ using Lisrel 8.7 (Jöreskog & Sörbom, 2001). A number of fit indices in addition to widely used chi-square statistics used to assess adequacy of fit of the model including goodness of fit index (GFI), the comparative fit index (CFI), the root mean square residual (RMSR), the non-normed fit index (NNFI) and the root mean square error of approximation (RMSEA). In general, a fit index exceeding .90 and higher suggested by GFI, NNFI and CFI and less than.05 suggested by RMSR and RMSEA is considered as an adequate to good fit (Byrne, 1998). The hypothesized measurement model with four latent variables resulted a large chi-square indicating poor fit to the model. However, respesification of the model according to modification index resulted a good fit to the data (ki kare (df) = 522 (121), p<.0001; GFI=.92; CFI=.98, NNFI=.98; RMSR=.05; RMSEA=.06). As a result, the findings of CFA confirmed the structural validity of the four-factor CEQ for the current sample.

Third criterion was concurrent validity. The past studies showed that students who evaluate their instructors positively also valued the course content more and reported higher amounts of satisfaction of the course in general (e.g., Marsh et al., 1997). In contrast, past studies indicated that students' evaluations are independent from past achievement measured by GPA (Marsh, 1980; Lizzio et al., 2002). In light of the past studies, correlation of the subscales with value placed to course content, GPA and satisfaction levels of the students were computed to determine the concurrent validity of CEQ.The significant relationships between course value and the subscales ranging from .174 (p<.01) for Appropriate Assessment to .509 (p<.001) for Generic Skills and lack of meaningful correlations between GPA and subscales confirm the concurrent validity of the CEQ.

In order to establish reliability, internal consistency, test-retest reliability and test split half reliability coefficiencies were computed. Cronbach's alpha values for Generic Skills, Clear Goals and Standards, Appropriate Assessments and Good Teaching scales were .92, .75, .80, .92, respectively. The three week test-retest reliability coefficients for the same subscales were .82, .70, .74 and .85, respectively. Finally, spearman brown split half coefficient values for the four subscales were .88, .68, .70 and .92, respectively.

Finally, to determine the relative contribution of each teaching dimension to self efficacy, stepwise regression analysis was run. The results were given in Table 1. According to the regression analysis, the best predictor of self efficacy was course value, followed by CGS and GT dimensions. Also, class level was significant predictor of the self efficacy, where the students of upper classes had higher self efficacy beliefs.

Table 1Summary Results of the Regression Analysis with CEQ Scales as Predictors of Self Efficacy

Variables	B	SEB	Beta
Task value	.344	.057	.366***
Clear goals	.242	.067	.231***
Class	.139	.049	.140**
Good Teaching	.146	.059	.170*

Note: R^2=.34 for Step 1, R^2=.42 for Step 2, R^2=.44 for Step 3, R^2=.45 for Step 4 (ps<.001) for Self Efficacy. ***p<.001, **p<.005, *p<.01

3. Discussion

Students' evaluations are widely accepted as a valid and useful measure of teaching quality. Nevertheless, no valid and reliable instrument to evaluate quality in higher education exists in Turkey. The results of this study provide clear support for establishment of validity and reliability of a widely used instrument in the field, namely CEQ with a sample attending to department of Education in Pamukkale University in Turkey. This study provides a useful tool to assess and enhance the quality of higher education. By means of such instruments many important questions in higher education could be evaluated and compared to those obtained in western cultures.

The results of this study are consistent with the other validity and reliability studies conducted in Europe and USA (e.g., Wilson et al., 1997) with the exception of appropriate workload subscale, which was not discriminated from appropriate assessment subscale in the current sample. Although previous research discriminated the workload items from assessment items, they also reported complexity with workload subscale. Both Wilson et al., (1997) and Kreber (2003) reported that CEQ comprises a higher-order two factor structure where appropriate workload makes up the second order higher order factor. This study further suggests that students might perceive course workload as part of assessment process rather than a tool to develop students' active participation and learning. Therefore, it seems that a heavy workload is also perceived as causing an inappropriate evaluation at least for the current sample. These seemingly unexpected results could be an artifact of cultural effects or as a result of the profile of the current sample. Further studies are needed to untangle the relationship between workload and assessment subscales.

The study extents current research by providing evidence for the relationship between students' evaluations and students' self efficacy beliefs. The self efficacy was most closely related to students' own value levels as well as good teaching practices and teachers' ability to organize instruction in a clear way. The results are in line with both conceptual and theoretical expectations in that both clearly organized instruction and good teaching would be especially helpful for those who need it most, in this case students who think they are not good at performing the necessary tasks in the course. The findings also in line with the research although not directly. Karagiannopoulou and Christodoulides (2005) reported that good teaching subscale was most closely related to students' endorsement of deep approaches to study and there exists a strong research base linking deep approaches to study to higher efficacy beliefs in students (Zimmerman & Martinez-Pons, 1992). This study adds that good teaching dimension helps inducing students' efficacy beliefs, adding a great deal of research establishing the importance of students' evaluations effect on students' behaviors.

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