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ScienceDirect

Procedia - Social and Behavioral Sciences 141 (2014) 686 – 690

Procedia Social and Behavioral Sciences

WCLTA 2013

Evaluation Of Pre-Service Teachers' Academic Self-Efficacy Levels In Terms Of Some Certain Variables

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Abstract

One of the important concepts in Bandura's Social Learning Theory is self-efficacy. Self-efficacy: A person's own judgement about achieving behaviours that will allow that person to reach a desired performance. This perception is also very important for the success of teachers. Because, people with high self-efficacy will also have a high persistence rate and will keep struggling in cases of failure. In this respect, aim of the study is to determine the self-efficacy levels of senior students in Ahi Evran University Faculty of Education (n=315) and to present the differences caused by gender, department and average academic scores. In this research, survey model is used and as the data collecting tool Self-efficacy Scale which was developed by Owen and Froman (1988) and adapted to Turkish by Ekici (2012) is used. Validity and reliability tests of this data collecting tool were also carried out by Ekici (2012). Cronbach Alpha reliability coefficient for the general of the scale was found as .904; it is found as .780 for social status dimension, .863 for cognitive applications dimension and .619 for technical skills dimension. Results of the research showed that the self-efficacy level of the senior students in Ahi Evran University Faculty of Education is above average for cognitive applications and technical skills; on the other hand, it is below average for social status. For social status and technical skills, gender has no effect on the academic self-efficacy level, however; it is seen that for cognitive applications, gender has a significant effect favouring female students. In accordance with the findings of the study, improving students' academic self-efficacy levels by regulation of teaching-learning environment is recommended.

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Selection and peer-review under responsibility of the Organizing Committee of WCLTA 2013.

Keywords: Self-efficacy, academic self-efficacy, pre-service teachers, faculty of education;

1. Introduction

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doi:10.1016/j.sbspro.2014.05.120

Recently, there has been an increasing amount of interest on self-centred, structured cognitive processes of human beings (Bandura, 1986). One of the important concepts that are put forth in Bandura's Social Learning Theory is self-efficacy. Self-efficacy is one's belief about his/her own capacity to improve his/her learning and behaviour up to the required levels. It is seen that creating and strengthening that self-efficacy has an impact on changing some behaviours (Bandura, 1977). Self-efficacy belief has an impact on one's deciding on doing something, effort expenditure and persistence in the face of difficulties (Schunk, 1981). Bandura (1977) argues that self-efficacy plays an active role on behaviour change. Students' learning arrangements, academic activities that are decided by motivation, their motivation levels and academic success rates are related to this self-efficacy belief. Most behaviour patterns are formed as thoughts. One's self-efficacy is effective on rehearsing and structuring prudential plans. These prudential thoughts provide the opportunity for experiencing success scenarios which gives positive guidance for those with a high self-efficacy. People who doubt their self-efficacy, on the other hand, are usually stuck on failure scenarios. It is extremely hard to overcome these self-doubts. Furthermore, when one's self-efficacy is at a higher level, it is seen that people tend to pick higher goals and their adherence gets firm (Bandura, 1993:117). Self-efficacy beliefs have an impact on; responsibility and desire for achieving goals, motivation levels, persistence in the face of difficulties, the quality of analytical thinking, casual attributions for success and failures, and vulnerability to stress and depression (Bandura et al, 1996). According to Bandura (1977) self-efficacy derives from 4 main sources of information: Performance accomplishments, vicarious experience, verbal persuasion, physiological states. The most dependable source among these is "performance accomplishments" since it is directly related to one's own experiences.

When students are given a subject on which they have a high self-efficacy, it is expected from them to make an effort. Inefficacious students on the other hand are tend to avoid the task, participate half-heartedly and give up readily in the face of challenge (Schunk, 2011:107). Students' self-efficacy and aspirations contribute directly to their academic success, peer acceptance and reducing depression and problem behaviour that can undermine productive engagement in academic pursuits. There is a differance between an individual's knowing what s/he can achieve and an individual's thinking what s/he might achieve (Schunk, 2011:107). Because individuals may believe that behaviours that are performed in certain ways can provide certain outcomes. Though if they feel a serious doubt about performing that behaviour, those beliefs on getting outcomes may not be enough for them to perform that behavior.

2. Aim of the Research

Aim of this research is to determine the academic self-efficacy levels of senior students in Ahi Evran University Faculty of Education and to examine them in terms of some certain variables. For this purpose the following sub-problems were sought to:

1. What is the level of academic self-efficacy of the senior students in Ahi Evran University, Faculty of Education?
2. Is there a meaningful difference caused by gender among the academic self-efficacy levels of the senior students in Ahi Evran University Faculty of Education?
3. Is there a meaningful difference caused by education departments among the academic self-efficacy levels of the senior students in Ahi Evran University Faculty of Education?
4. Is there a meaningful difference caused by academic averages of students among the academic self-efficacy levels of the senior students in Ahi Evran University Faculty of Education?

3. Method

Survey model is found appropriate for the purpose of the study. In this model, the researcher examines on-going facts without interfering. In other words, the researcher does not add additional variables into the environment (Sönmez and Alacapınar, 2011:46). What is important in this model is observing the fact without changing it (Karasar, 2012:75; Köse, 2013:111). The population of the study consists of 2012-2013 academic year senior students (pre-service teachers) of Ahi Evran University Faculty of Education. The sample consists of 315 senior students picked with simple random sampling method from the population of the study. Sönmez and Alacapınar

(2011:96) describe this method as putting all the names in the population in a bag and picking the desired number of students among these names. The most prominent property of this sampling method is that all the students have an equal chance of entering the sample (Büyüköztürk et al, 2009:84; Yeşil, 2013:61). In this research, Academic Self-Efficacy Scale was used. It was developed by Owen & Froman (1988). Validity and reliability tests and Turkish adaptation were executed by Ekici (2012). Regarding the use of the scale, Ekici was contacted and permission was granted. Ekici (2012) practiced with 683 university students to examine the validity and reliability of the scale and put forth three sub-dimensions for the 33-item scale; social status, cognitive applications and technical skills.

Cronbach Alpha reliability coefficient for the general of the scale was calculated as .904; it is calculated as .780 for social status dimension, it is .863 for cognitive applications dimension and it .619 for technical skills dimension. Five-point Likert type scale was prepared. For social status dimension, 10 items were included. The maximum point for possible results was calculated as 50 points, minimum point as 10 points and average point as 30 points. For cognitive applications dimension, 19 items were included. The maximum point for possible results was calculated as 95 points, minimum point as 19 points and average point as 57 points. For technical skills dimension, 4 items were included. The maximum point for possible results was calculated as 20 points, minimum point as 4 points and average point as 12 points. Students'' academic self-efficacy levels are interpreted from students' scores on these sub-dimensions of the scale.

4. Findings

4.1 Findings Related to the First Sub-Problem

Average points on social status, cognitive applications and technical skills sub-dimensions were calculated in order to determine academic self-efficacy levels of pre-service teachers. The average point of social status sub-dimension of 315 pre-service teachers is 29,55, the average point of cognitive applications sub-dimension is 63,07 and the average point of technical skills sub-dimension is 12,26. It is seen that academic self-efficacy levels of pre-service teachers on social status sub-dimension are below the defined average (30 points). On cognitive applications sub-dimension, participants' academic self-efficacy levels are above the defined average (57 points). On technical skills sub-dimension, participants' academic self-efficacy levels are slightly above the defined average (12 points).

This shows us that the academic self-efficacy levels of pre-service teachers are at high levels on cognitive applications and technical skills sub-dimensions, however; on social status sub-dimension their academic self-efficacy levels are at lower values.

4.2 Findings Related to the Second Sub-Problem

In order to evaluate pre-service teachers' academic self-efficacy levels in terms of the gender variable, independent samples t-test was performed. Analysis of the t-test results showed that there is no significant difference between results on social status and technical skills sub-dimensions; however, on cognitive applications sub-dimension there is a significant difference in favour of female students. Based on this finding, it is safe to state that female pre-service teachers have higher academic self-efficacy levels on cognitive applications sub-dimension than male pre-service teachers.

4.3 Findings Related to the Third Sub-Problem

In order to evaluate pre-service teachers' academic self-efficacy levels in terms of education departments' variable, descriptive statistics were performed. According to the education departments the academic self-efficacy levels changes between 28,45 and 31,07 on social status sub-dimension; standard derivation changes between 5,40 and 6,64. The department with the lowest academic self-efficacy level on social status sub-dimension is pre-school department; the department with the highest values is science teaching department.

On cognitive applications sub-dimension, average points of pre-service teachers on different departments change between 58,80 and 67,28; standard derivation changes between 8,69 and 11,98. The department with the lowest academic self-efficacy level on cognitive applications sub-dimension is Turkish teaching department, the department with the highest values is pre-school teaching department.

On technical skills sub-dimension, average points of pre-service teachers on different departments change

between 11,54 and 13,20; standard derivation changes between 2,71 and 3,31. The department with the lowest academic self-efficacy level on technical skills sub-dimension is Turkish teaching department; the department with the highest values is science teaching department.

Levene Statistics was performed in order to determine whether the results are suitable for ANOVA tests or not. Levene Statistics showed p values higher than .05 (social status sub-dimension p= .490, cognitive applications sub-dimension p= .137 and technical skills sub-dimension p= .930; p>.05). This data proved that variances are homogenous, thus ANOVA tests were used. There is no significant difference regarding education departments among pre-service teachers' academic self-efficacy levels on social status and technical skills sub-dimensions (social status sub-dimension p= .283 and technical skills sub-dimension p= .106; p> .05). However, there is a significant difference regarding education departments among pre-service teachers' academic self-efficacy levels on cognitive applications (p= .001; p< .05). In order to determine among which departments this difference exists, Bonferroni test (multiple comparison test) was performed. According to the comparison results, academic self-efficacy levels on cognitive applications sub-dimension of pre-service teachers from pre-school teaching department are higher than those from Turkish teaching department (p= .030; p< .05). Furthermore, academic self-efficacy levels on cognitive applications sub-dimension of pre-service teachers from science teaching department are higher than those from Turkish teaching department (p= .015; p< .05) and social studies teaching department (p= .020; p< .05).

4.4 Findings Related to the Fourth Sub-Problem

In order to evaluate pre-service teachers' academic self-efficacy levels in terms of academic averages variable, descriptive statistics were performed. The number of participants who have academic averages between 0,00 - 1,00 and 1,01 - 2,00 are quiet low (n=4). Therefore, the data gathered from participants who have academic averages between 0,00 - 1,00 and 1,01 - 2,00 is not included in the analysis process.

In order to determine whether there is a significant difference between academic self-efficacy levels of pre-service teachers who have academic averages between 2,01 - 3,00 and 3,01 - 4,00, independent samples t-test was performed. Analysis showed that there is no significant difference regarding academic averages on technical skills sub-dimension (p= .291; p> .05), however; on social status and cognitive applications sub-dimensions there is a significant difference in favour of the participants who have academic averages between 3,01 - 4,00. Based on this finding, it is safe to state that participants who have academic averages between 3,01 - 4,00 have higher self-efficacy levels on social status and cognitive applications sub-dimensions than participants with lower academic averages.

5. Results

This research was carried out to determine the academic self-efficacy levels of senior students in Ahi Evran University Faculty of Education and to determine differentiation conditions in terms of some certain variables. The results obtained from the findings of the study can be summarized as follows:

Pre-service teachers' academic self-efficacy levels are high on cognitive applications and technical skills sub-dimensions, but, low on social status sub-dimension. There is no significant difference regarding gender among pre-service teachers' academic self-efficacy levels on social status and technical skills sub-dimensions. Female pre-service teachers' academic self-efficacy levels on cognitive applications are higher than male participants' levels. Participants with the lowest academic self-efficacy levels on social status sub-dimension are from pre-school teaching department, the highest values on social status sub-dimension come from science teaching department. Participants with the lowest academic self-efficacy levels on cognitive applications sub-dimension are from Turkish teaching department, the highest values on cognitive applications sub-dimension come from pre-school teaching department. Academic self-efficacy levels on cognitive applications sub-dimension of pre-service teachers from pre-school teaching department are significantly higher than those from Turkish teaching department. Participants with the lowest academic self-efficacy levels on technical skills sub-dimension are from Turkish teaching department, the highest values on technical skills sub-dimension come from science teaching department. Academic self-efficacy levels on cognitive applications sub-dimension of pre-service teachers from science teaching department are significantly higher than those from Turkish teaching department and social studies teaching department. Academic self-efficacy levels on social status and cognitive applications sub-dimensions of pre-service teachers with academic averages between 3,01 - 4,00 are higher than levels of participants with lower academic averages.

6. Suggestions

Based on the research findings, the following suggestions are made: In order for the teaching profession to be perceived as a respected profession, the required economic and social improvements should be made. It is thought that without changing the overall judgement of the society, it is bound to be extremely hard to improve teachers' and pre-service teachers' academic self-efficacy levels on social status. In order to improve the academic self-efficacy levels on cognitive applications sub-dimension of pre-service teachers who are studying in verbal departments, appropriate learning environments should be designed. This research was conducted on senior students from Ahi Evran University Faculty of Education. Repeating the study in other universities and students studying in different faculties is considered to contribute to the field.

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