Study on Development of Sensitivity Scale for Teaching Profession

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Abstract: The purpose of this study is to develop a sensitivity scale intended for teaching profession. It is assumed that those who pick teaching as profession should have an inherent tendency for this job. The research is developed based on five stages including detection of the views on sensitivity with regard to teaching profession, determination of the scale items, preparation of the trial scale, implementation of the scale and measurement of the validity and reliability. In the end, a scale involving 17 items has been developed. The items factors value are between .30 and .79. It is found that KMO value is 0.906, Bartlett test is 0.000 and items factor values are 0.30 and upper at the end of the exploratory factor analysis. t values of upper and lower groups is found significant. These findings confirm that this scale has validity. Cronbach Alpha coefficient is found 0.884, which means that this scale is reliable.

Key words: Teaching job, professional sensitivity, sensitivity scale

Introduction

In general, a profession may be defined as a set of activities acquired via education and carried out by the individuals on a regular and planned basis to make a living (Çoban, 2003). Teaching profession is an educational job with a professional status inclusive of individual, social, cultural, scientific and technological dimensions. Kuzgun (1996b) stresses that there are visible distinctions between professions. These distinctions bring differences to the fore. Those who pick teaching as their profession should be aware that they have to display the necessary qualifications for this particular job.

Whether the satisfaction the teaching profession provides and the professional value emphasized by the individuals who pick this profession actually overlap should be considered before making a selection and pick. Wise decisions and picks are made if the satisfaction that the profession supplies and the expectations of the picker are effectively compared. Those who have monetary and material expectations out of teaching profession should be well aware that the teaching profession falls short to meet such anticipations (Akbaba, 2000).

It is possible to argue that the following three factors are determinative in professional achievements and successes (Uygun, 2008): the qualities of the individual, the characteristics of the professional education and performance.

Professional education and performance are characteristics that may be enhanced after deciding on the professional direction. The qualities of the individual, however, are important to the process by which the profession is picked. Both emotional and psychic factors and aspects are important.

Emotional features can be explained by the notions of interest, attitude and academic selfness. Above all, the individuals should be ambitious, volunteer and eager for the profession; they should also hold positive attitudes with regard to the image of the profession. Their academic selfness should also be complete so that they uphold clear tendency towards the profession. Academic selfness is a style by which the individual concludes as to whether he or she will be able to perform the profession successfully (Kuzgun, 1996). Academic selfness is related to cognitive and psycho-motor aspects. For instance, a teacher may be visually-impaired. If that teacher does not view this handicap as an obstacle before the performance of the profession and he is well aware of this, it could be said his or her academic selfness is adequate for the profession (Uygun, 2008).

Cognitive aspects, however, can be explained by the notions of knowledge, skill and competence. These aspects may be acquired via education and they enhance professional sensitivity. Expertise in the relevant field, professional adequacy and cultural competence constitute the set of fundamental knowledge for the teacher education. The teacher should be able to convert the information he or she has received from other sources during professional education into skill and be competent enough.
The role of the teachers as well as the status and image of the profession is closely related to cognitive features. The awareness of those who pick this profession and their perception on the status of the profession determine their professional sensitivity. Whether these are positive or negative does not matter at all; what matters is whether they have been properly informed. For instance, if, despite the information that ‘teacher salary is small,’ the individual is still eager to pick this profession, he could be said to have professional sensitivity (Uygun, 2008). Individuals sensitive to the profession may become successful despite small amount of salaries.

Individual expectations and interests as well as professional characteristics have a deterministic impact in business life. The individuals become more successful in their profession if they had picked the most appropriate line of business for themselves in terms of professional satisfaction and individual improvement. Those who fail to achieve professional satisfaction may suffer from a syndrome of exhaustion (Cemaloglu and Erdemoglu, 2007).

Teaching is one of the professions that require inherent motivation. The teacher motivation is particularly important to make sure that the students are motivated in the class and that effective reforms in advanced forms are introduced. Motivated teachers play key roles in (1) implementation of educational reforms, (2) application of the emergent changes and (3) attainment of success and satisfaction (Yazici, 2009).

The sources of the professional motivation of the teachers may vary (Yazici, 2009). This is nothing but natural. What matters most is whether the individuals are aware of the sources of motivation during the selection of the profession. For such awareness, the individuals have to be aware of their skills and informed about the features of the profession. If the individuals who properly recognize themselves and the profession become decisive in the selection of a profession, it could be argued that they have professional sensitivity.

Sensitivity is an emotional and sensory feature that can be learned. Professional sensitivity, on the other hand, refers to aptitude to the profession. Aptitude can be explained by such notions as interest in the profession, eagerness and professional prestige. The level of sensitivity held by the individuals vis-à-vis their profession may provide insights with regard to professional success and satisfaction considering that it is more likely to witness that they have developed positive or negative attitudes depending on their level of sensitivity. For this reason, it is important to encourage people with high level of sensitivity for teaching profession to pick this profession as their job.

Professional sensitivity is also associated with the self-sensitivity of the individuals. Self-sensitivity refers to openness to the emotions, being meticulous and affectionate, state of understanding and reason in case of incompetence and failures and acknowledgement of negative experiences as natural parts of the life. Researches prove relation of the self-sensitivity to a number of notions including self-acknowledgement, satisfaction, social interest, awareness, autonomy, personal development, happiness and optimism (Akin et al., 2007).

Sensitivity is also related to attitude. Attitude can be defined as a factor directing the actions of the individual and preparing him for being guided (Semerci, 1999). Perceptions over teaching profession may change depending on the status and image of the profession whereas they may also vary based on the individual attitudes. The decisiveness in picking the profession despite the difficulties involved points to self-sensitivity as well as positive attitude towards the profession. All these aspects may considered within the context of professional sensitivity.

Researchers find a positive correlation between the attitudes of the teachers towards their profession and the level of self-sensitivity and the qualifications enhancing the quality of the training at the school including performance, professional motivation, satisfaction, efficiency of teaching activities in the class and the nature of the relations between the students and the teachers in the class (Semerci, 2004; Akin et al., 2007; Uygun, 2008).

The basic sensitivity indicators for teaching profession include interest in teaching, eagerness and inherent motivation towards acquisition of the attitudes necessary for the profession. The indicators for inherent and innate motivation is determination to pick the teaching profession and awareness of the professional features. It should be admitted despite this basic assumption that selection of a profession is not that easy. To do this, a number of different theories and approaches referring to professional psychological consultation and guidance have been offered (Akbaa 2000; Kuzgun, 2000). This study which puts emphasis upon professional sensitivity seeks to develop independently of these theories a scale that will measure the level of sensitivity of the individuals ready to pick teaching as their profession. This work will fill the void with respect to the selection of a profession by individuals with high level of sensitivity.

It is hard to define the individual and professional features sensitive to the teaching profession as the role of the teacher, the status of the profession or its image may change over the time and they may vary depending on the different perspectives held. The teachers may take a look at their profession from different points of view including idealism, ideology, material satisfaction and criticality (Akyuz, 1978). The value attributed to the teaching profession may become different depending on each point of view. For instance, teaching is a sacred profession for idealists. This and other similar approaches diversify the factors leading to sensitivity towards teaching profession. These factors are closely related to the professional perception of values.
The professional values are connected to the satisfactions deriving from the results including the environment where the professional duties are carried out, the income and rewards (Kuzgun, 2000).

A review of the findings of the researches focusing on the factors influential in the selection of teaching by the candidate teachers as their profession confirms that the candidates view teaching as a sacred, prestigious, decent and influential profession that requires a sense of responsibility and sacrifice. However, the majority of the candidate teachers stated that they would perform this job in the presence of extraordinary conditions because the circumstances are not found adequate by the students (Ozbek et al., 2007). However, those who will pick teaching as their profession should display positive attitudes despite all defects and shortcomings of the profession, have a visible self-sensitivity and professional sensitivity.

Selection of the individuals sensitive to the teaching profession will improve the quality of teacher-training institutions and make sure that more qualified teachers will be recruited. By doing so, the quality of the educational facilities will be improved as well considering that the teacher factor is an important determinant in the educational system (Kavcar, 1999; Gok, 2003).

This study seeks to develop a scale that could be used in the selection of individuals sensitive to the profession. This scale is designed as a tool to serve as a reliable and valid instrument in the picking of teaching profession along with the ‘scale for the notion of academic selfness’ (1996a), ‘scale for self-evaluation inventory’ (1996b) developed by Kuzgun as well as ‘scale for attitudes in relation to teaching profession’ (Semerci, 1999) and ‘scale for self-sensitivity’ (Akin et al., 2007).

Methodology

The study consists of five stages including detection of the views on the teaching profession, determination of the scale entries and items, preparation of the trial scale, implementation of the scale and measurement of the reliability and validity. The researchers first reviewed the literature and surveyed 180 college students at the Faculty of Education of Canakkale 18 Mart University; the participants were asked an open-ended question. The question reads as follows: ‘Would you briefly write down what you understand from sensitivity towards teaching profession?’ The responses were analyzed and subsequently, the entries were determined for a trial scale based on the responses and the literature review. The opinions of two experts in the fields of educational philosophy and educational psychology were received during the process where these entries were determined. Subsequent to this process, a trial scale of 59 entries was drafted. The entries in the scale were arranged in 5-degree scale. The affirmative question items were graded as 1- I never agree, 2- I do not agree, 3- I am undecided, 4- I agree, and 5- I strongly agree. A complete reverse grading was applied to the negative set of questions. The entries no 15, 26, 28, 38, 47, 49, 50, 54 and 56 include adverse statements in this research.

Sencan (2005) notes that the size of the sample is acceptable if it is sizeable enough to make sure that there are at least five events per entry. For this reason, the trial scale was applied to 254 students studying at the Faculty of Education of Canakkale 18 Mart University from different departments in the Spring semester of 2008-2009.

For the analysis of the scale, the verified correlation value between the Cronbach Alpha reliability coefficient and the entries was reviewed by relying on the SPSS 13 software. The entries with a correlation value below 0.30 were taken out of the analysis.

To locate the validity of the scale and to dimension the entries included in the scale after determination of their factor loads, a factor analysis was run. Buyukozturk (2007) and Sencan (2005) stressed that the factor load value should be 0.40 or higher for the sorting out of the entries. It was noted that when the principal axis factoring and direct oblimin analysis are used together, they would facilitate formation of factors in the presence of an assumption of correlation within the factor (Hill, 1987; Creed and Machin, 2003). Principal axis factoring and direct oblimin were preferred in this study considering that this is the first work to develop a scale.

In the explanatory factor analysis, the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett test were analyzed together. It was noted that a KMO value over 0.60 and a significant Bartlett test (p<0.05) means that a factor may be derived from the data (Buyukozturk, 2007; Sencan, 2005).

Subsequent to the explanatory factor analysis, a corroborant factor analysis was run by using LISREL 8.0 (Joreskog and Sorbom, 1993; cited at Simsek, 2007) statistics software. In the review of the corroborant factor analysis, diagram and harmony level criteria and correction recommendations were considered.

In the diagram evaluation, the standardized values and the t value were taken into account. In the standardized values, the ability of each entry to represent its variable was reviewed; in the t value, whether the relevant entry is significant in 0.05 level was investigated.

With respect to the goodness of fit, the harmony between the relations in the model and the data is considered (Simsek, 2007). Here the ratio between the Chi square and the degree of freedom was evaluated. This ratio is expected to be 3-4 at most. The other criteria include RMSEA (Root Mean Square of Approximation),
CFI (Comparative fit index), IFI (Incremental fit index) and standardized RMR(SRMR). Some researches (Simsek, 2007; Fossati et al., 2003) note that the RMSEA and SRMR may fall below 0.08; they even argue that a value below 0.05 may indicate a better fitness. Simsek (2007) notes that CFI and IFI values above 0.90 refer to a better fitness.

In the correction recommendations, the ratio between the Chi-square and the degree of freedom is considered. The impact of the correction on the decrease of the Chi-square value refers to an improved model. However, excessive amount or degree of correction points to existence of a problem with the model (Simsek, 2007). To determine whether each entry in the scale is competent to distinguish the individuals and to measure the internal validity, the scale grades were divided into 27 pct up and bottom groups. Independent groups t-test was applied to determine the degree of significance between the group entry grades. The factor loads of the dimensioned entries were evaluated to develop a three-dimensional scale inclusive of 17 entries. At the last stage, the dimensions were named.

Findings

The trial scale consisting of 59 entries was applied to 254 respondents; subsequently, a reliability analysis was run. All entry correlation values falling below 0.30 in the reliability analysis (3, 4, 5, 8, 9, 10, 12, 14, 15, 18, 19, 25, 36, 28, 35, 38, 39, 40, 41, 43, 45, 47, 49, 50, 53, 54, 55, 56) were taken out. The remaining entries were subjected to explanatory factor analysis. As a result of the analysis, the entries were taken out of the analysis since the factor loads were intertwined with other dimensions and the factor loads were below 0.30. In the second run of the factor analysis, the Kaiser-Meyer-Olkin (KMO) value was found 0.906 whereas the degree of significance of the Bartlett dimensionality test became 0.000. It was assumed that the number of working group was adequate considering that the KMO value was close to 1. The data could be said to be consistent with the factor analysis based on the KMO value and the significance of the Bartlett dimensionality test.

To determine the factor number, the scree testing graphic and the total variance figure were considered together (Figure 1). As the figure indicates, a steep decline was observed in the curve and two consecutive declines in its aftermath. It was assumed that the scale would be three-dimensional and an SPSS parallel analysis was run to test this assumption. The results of eigenvalue obtained in the parallel analysis as well as the explanatory factor analysis eigenvalues are provided in Table 1.
As Table 1 indicates, the three-dimensional factor analysis eigenvalue results are higher when compared to the parallel analysis results. In addition to these evaluations, a review of the total variance table reveals that the first dimension explains the 37.309 pct of the total variance whereas the second refers to the 48.468 pct and the third to 54.364 pct of the total variance. These values indicate that the scale may be three-dimensional.

Table 1. Comparison between factor analysis-parallel analysis eigenvalues

<table>
<thead>
<tr>
<th>Factor analysis eigenvalue results</th>
<th>Parallel analysis eigenvalue results</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dim. 1</td>
<td>9.418</td>
<td>1.613</td>
</tr>
<tr>
<td>Dim. 2</td>
<td>2.518</td>
<td>1.522</td>
</tr>
<tr>
<td>Dim. 3</td>
<td>1.666</td>
<td>1.440</td>
</tr>
</tbody>
</table>

A three-dimensional scale inclusive of 17 entries was obtained at the end of the explanatory factor analysis. The factor loads of the entries and the breakdown of the entries by dimension are provided in Table 2.

Table 2. Factor loads of the entries by dimension

<table>
<thead>
<tr>
<th>Entries</th>
<th>I. Dim.</th>
<th>II. Dim.</th>
<th>III.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Teacher should be observant and eager to do research</td>
<td>.704</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Learning something excites me</td>
<td>.659</td>
<td></td>
<td></td>
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<tr>
<td>11. It is profession requiring social responsibility</td>
<td>.649</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I am sensitive with respect to social issues</td>
<td>.612</td>
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</tbody>
</table>
23. It is a profession requiring sacrifice .587
24. Teaching is a profession open to change and innovation .571
29. I can make sacrifices for teaching profession .553
6. I am happy to teach new things to the students .540
7. I feel responsible when I do not fulfill the requirements of the profession .532
1. Teaching is a profession of love .502
27. Teaching is the profession that I find most suitable for me .787
34. My biggest ideal is to become a teacher .692
31. The idea that I would become a teacher makes me happy .534
6. I am happy to teach new things to the students .781
48. Teaching requires sacrifice .415
33. Teaching should be the most prestigious profession in the society .307

As Table 2 indicates, entries 13, 16, 11, 17, 23, 24, 29, 6, 7 and 1 constituted the first dimension whereas entries 37, 27, 34 and 31 the second and entries 30, 48 and 33 the third dimension.

Independent groups t test was run in the SPSS software to determine the internal validity of the scale. The test results were first sequenced from low values to the highest and the upper 27 pct and bottom 27 pct of the group was calculated. The total grades of the 68 participants in the 27 pct part (Table 3) were compared.

Table 3. Detection of internal validity of the scale

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>X</th>
<th>ss</th>
<th>sd</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom</td>
<td>68</td>
<td>18.00</td>
<td>1.55</td>
<td>134</td>
<td>-32.343</td>
<td>0.000</td>
</tr>
<tr>
<td>Upper</td>
<td>68</td>
<td>36.41</td>
<td>4.42</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

In the total entry grades, the average of the upper group is higher (X: 36.41); there is significant difference in favor of the upper group (p<.05). This shows that the questions are visibly distinct and distinguishable and hold internal validity.

To measure the reliability of the scale, Cronbach Alpha Reliability Coefficient was considered; the coefficient was found 0.884 which points to availability of high reliability.

The dimensions were considered and they were subsequently named. The first dimension was named as “Interest and Eagerness,” whereas the second was called “Determination” and the third “Awareness.”

Subsequent to the running of the explanatory factor analysis, a corroborant factor analysis was run by relying on LISREL software. Entries 22, 2, 59, 36, 52, 44, 42 and 32 were taken out of the analysis as they negatively affected the goodness of fit values and displayed too many warnings of correction in the corroborant factor analysis. The explanatory factor analysis was rerun after these entries were taken out and the values specified above were obtained.
The diagram displays the standardized values. None of the values between the latent variables and observed variables is above 1. Therefore, it was concluded that the correlation values between the observed values are appropriate. No red arrow sign was encountered in the t values. This shows that the entries are significant at 0.05 level. Goodness of fit and correction recommendations were considered in the output file. Corrections were made to entries 6, 27, 23, 24, 37 and 48. The diagram created after the correction is presented in Figure 2. The ratio between the Chi-square and the degree of freedom is 2.80 and Chi-square has a significance of 0.00000. RMSEA was found 0.084, the SRMR 0.052, CFI 0.91 and IFI 0.91 in goodness of fit values.

Conclusion

The KMO value 0.906, Bartlett dimensionality test value (0.000), entry factor loadings (0.30 and above) and significance at t value between the upper and bottom groups in the explanatory factor analysis prove that the scale has validity (Büyüköztürk, 2007; Şencan, 2005); the Cronbach Alpha coefficient (0.884) in the reliability analysis confirms that the scale is also reliable (Büyüköztürk, 2007). Retrieval of appropriate values out of the corroborative factor analysis of this scale formed as three-dimensional (X²/df: 2.80, RMSEA: 0.084, SRMR: 0.052, CFI: 0.91, IFI: 0.91) shows that the scale has a strong and solid theoretical base (Şimşek, 2007).

A review of the meanings presented by the 10 entries gathered at the first factor shows that the individuals who have a prior appreciation and knowledge of the profession are more eager and interested in picking teaching as their lifelong profession. The four entries gathered at the second factor underline that the individuals consider their desires, wishes and characteristics in addition to the features and nature of the profession when making a selection. In the third part, on the other hand, the individuals are aware of the individual and professional characteristics required for the profession. It could be argued that the “interest and eagerness,” “determination” and “awareness” handled in these three dimensions point to the sensitivity towards teaching profession.
This sensitivity scale towards teaching profession supports the “academic selfness” and “professional maturity” scales developed by Kuzgun (1996). An analysis of the entry statements in the scale also shows that it shares similarities with the “attitude scale for the teaching profession” offered by Semerci (1999). However, this is not a study of attitude scale, though it points to the attitudes towards the teaching profession. Even though it refers to professional sensitivity as well as positive attitudes and perceptions towards teaching profession, the study also encompasses self-sensitivity. The self-sensitivity statements spelled out among the entries referring to the professional sensitivity including statements that indicate the participants were aware of the characteristics of the profession and of their strengths and weaknesses and that they are aware and optimistic in regards to satisfaction despite some defects of the profession are consistent with the “self-sensitivity scale” developed by Akin et al. (2007).

The status of teaching profession will be elevated and improved and the overall quality of the education provided at the schools will be significantly enhanced if individuals with higher sensitivity pick teaching as their lifelong profession. To make sure that individuals with higher sensitivity towards teaching profession are recruited as teachers, this scale may be used for candidate teachers; this will ensure employment of individuals with higher sensitivity towards teaching profession in the teacher education institutions.
References


Dear Candidate Teacher,

This scale has been drafted to measure your sensitivity towards teaching profession. Below are 17 entries seeking to determine your sensitivity towards the profession. Please read each entry very carefully and indicate your degree of agreement with the statement by marking an (X). Thank you for your sensitivity for this study.

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Research Assistant Emel OKUR

<table>
<thead>
<tr>
<th>Statements of sensitivity towards teaching profession</th>
<th>Never agreed</th>
<th>Not agreed</th>
<th>Undecided</th>
<th>Agreed</th>
<th>Totally agreed</th>
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</thead>
<tbody>
<tr>
<td>1. Teacher should be observant and eager to do research</td>
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<tr>
<td>2. Teaching something excites me</td>
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<td>3. Teaching is profession that requires social responsibility</td>
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<td>4. I am sensitive about social issues</td>
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<td>5. Teaching is a profession that requires sacrifices</td>
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<tr>
<td>6. Teaching is a profession open to changes and innovations</td>
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<td>7. I can make sacrifices for teaching profession</td>
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<td>8. I’d be happy with teaching new things to the students</td>
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<td>9. I feel responsible when I fail to fulfill the requirements of the profession</td>
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<td>10. Teaching is a profession of love</td>
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<td>11. Teaching is the profession that preferred most</td>
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<tr>
<td>12. Teaching is the profession that I find most suitable for me</td>
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<tr>
<td>13. My biggest ideal is to become a teacher</td>
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<tr>
<td>14. The idea that I’d become a teacher makes me happy</td>
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<tr>
<td>15. Learning new things excites me</td>
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<td></td>
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<tr>
<td>16. Teaching requires being idealist</td>
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<tr>
<td>17. Teaching should be the most respectable and prestigious profession in the community</td>
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</table>