The relationship among teacher efficacy, efficacy regarding teaching, and responsibility for student achievement

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Abstract

In this study, it is aimed to evaluate the relationship among student teachers’ self-efficacy perceptions, self-efficacy perceptions regarding teaching process and responsibility perception for student achievement. This study was prepared by screening model. To collect the data, teacher sense of efficacy scale, self-efficacy perceptions regarding teaching process and responsibility perception for student achievement were used. The Cronbach’s Alpha coefficients were found as .920, .957 and .755 respectively. In addition to descriptive statistics, independent samples t-test and Pearson correlation coefficient were used to analyze the data. The study indicated that gender of student teachers has an effect on self-efficacy perceptions, self-efficacy perceptions regarding teaching process and responsibility achievement for student achievement. On the other hand, there are positive, medium and high level relationships among student teachers’ self-efficacy perceptions, self-efficacy perceptions regarding teaching process and responsibility perception for student achievement.

Keywords: Teacher self-efficacy perception, self-efficacy perception regarding teaching process, responsibility achievement for student achievement, student teachers

1. Introduction

In education, teachers have an important role, and the qualifications of teachers have been the main focus in the literature for about 40 years. In these studies, researchers have made use of Rotter’s (1966) Locus of Control Theory and Bandura’s (1977) Social Cognitive Theory.

Locus of control term theorized by Rotter (1966) links to the expectancies about future results of individuals’ actions, and it also might be defined as the tendency to perceive good or miserable matters as the result of external factors such as luck, destiny, fortune and other strong people (Dönmez, 1986). According to “responsibility for student achievement” term of Guskey (1981a), teachers having mastery perception regard themselves responsible.

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for student achievement and failure. On the other hand, teachers not having this mastery account for failure with external factors.

In Social Cognitive Theory of Bandura (1977), one of the most significant notions is “self-efficacy”. Self-efficacy is defined as an effective qualification for forming behaviors and “the belief in one’s capabilities to organize and execute the courses of action required managing prospective situations” (Bandura, 1997; Zimmerman, 1995). There could be many varieties of self-efficacy in different fields as for teachers’ sense of efficacy. Teachers’ sense of efficacy is the belief in showing necessary behaviors to fulfill their duties successfully (Aston, 1984; Brouwers & Tomic, 2003; Guskey & Passaro, 1994; Tschannen-Moran & Hoy, 2001).

A host of studies could be found about responsibility perception for student achievement, and teachers’ sense of efficacy. However, there is a dearth of studies investigating these interrelated affective behaviors in the same study. Furthermore, responsibility perception for student achievement, teachers’ sense of efficacy and self-efficacy perception regarding teaching process, being one sub scale of teachers’ sense of efficacy, are bound up with each other. Teachers having high locus of control perception have also high professional competency perception, and they are able to take responsibility for student achievement. When it is considered that locus of control has a significant effect on in-class behaviors of teachers, planning teaching process, motivation, effective classroom management skills, and providing student participation in the classroom (Adu & Olantundun, 2007; Akiri & Ugborugbo, 2009; Guskey, 1981b; Hoy & Spero, 2005; Woolfolk et al., 990), studying on these interrelated concepts might contribute to the field.

2. The aim of the study

In this study, it is aimed to evaluate the relationship among student teachers’ self-efficacy perceptions, self-efficacy perceptions regarding teaching process and responsibility perception for student achievement. Within this context, the following questions were posed and investigated in this study;

1- How is teachers’ sense of efficacy, self-efficacy regarding teaching process, and responsibility perception for student achievement?
2- Is there any relationship between gender and teachers’ sense of efficacy, self-efficacy regarding teaching process, and responsibility perception for student achievement?
3- Is there any correlation among the variables of teachers’ sense of efficacy, self-efficacy regarding teaching process, and responsibility perception for student achievement?

3. Methodology

In this study, screening model was used. Screening model is a research design aiming to identify, describe and explain a past or current situation, cases, groups, objects and their characteristics (Ekiz, 2003; Karasar, 2006).

3.1. Participants

The study group was comprised of 246 student teachers studying in different departments of Education Faculty of Gazi University in 2011-2012 academic years.

3.2. Instruments

To collect the data, Teachers’ Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001), The Scale of Self-efficacy Beliefs of Student Teachers regarding Teaching Process (Özdemir, 2008), and The Scale of Responsibility Perception for Student Achievement (Guskey, 1981a) were used.

Teachers’ Sense of Efficacy Scale; was adapted into Turkish by Çapa et al. (2005). The 9 point likert type scale consists of 24 items. For this study, the Cronbach’s alpha reliability was computed as .920.

The Scale of Self-efficacy Beliefs of Student Teachers regarding Teaching Process; having 3 sub scales consists of 40 items on 5 point likert type scale. The Cronbach’s alpha reliability was found as .957 in this study.

The Scale of Responsibility Perception for Student Achievement; was adapted into Turkish by Ekici (2012a). The scale having 2 sub scales as responsibility for student achievement, and responsibility for student failure consists of 30 items. The Cronbach’s reliability coefficient was computed as .755 for this study.
3.3. Data Analysis

In addition to descriptive statistics, independent t-test, reliability coefficient analysis and Pearson correlation coefficient were applied with the help of SPSS-18 package program for the analysis of the data.

4. Results

In Table 1, the descriptive statistics were given about teachers’ sense of efficacy, self-efficacy regarding teaching process, and responsibility perception for student achievement.

Table 1. The descriptive statistics about teachers’ sense of efficacy, self-efficacy regarding teaching process, and responsibility achievement

| Scale and sub scales                                | N  | Mean  | SD    | Minimum | Maximum |
|-----------------------------------------------------|----|-------|-------|---------|---------|
| **Teachers’ Sense of Efficacy Scale**                |    |       |       |         |         |
| Efficacy in student engagement                      | 246| 162.31| 20.48 | 116.00  | 212.00  |
| Efficacy in instructional strategies                 | 246| 54.58 | 7.64  | 35.00   | 72.00   |
| Efficacy in classroom management                     | 246| 55.17 | 8.17  | 34.00   | 72.00   |
| **The Scale of self-efficacy perception regarding teaching process** |    |       |       |         |         |
| Planning teaching process                           | 246| 156.60| 17.08 | 112.00  | 200.00  |
| Applying teaching process                           | 246| 156.54| 16.89 |         |         |
| Evaluating teaching process                         | 246| 54.21 | 8.31  |         |         |
| **The scale of responsibility achievement for student achievement** |    |       |       |         |         |
| Responsibility for student achievement               | 246| 50.45 | 10.78 | 16.67   | 90.40   |
| Responsibility for student failure                   | 246| 59.10 | 9.11  | 37.40   | 85.33   |

According to the comparison in Table 1, student teachers’ self-efficacy perception levels were on X=162.31 which is around 7 on 9 point likert type scale. This result accounts for high self-efficacy perception of student teachers. It was also determined that self-efficacy levels of student teachers were also high for the sub scales.

The self-efficacy levels of students regarding teaching process was computed as X=156.60 in this study. When the number of 200 is considered the highest point in the scale, this result can also be said high. It was determined that self-efficacy levels of student teachers regarding teaching process were high in the sub scales, too.

The points for the responsibility perception for student achievement was found to be X=54.78 for the overall scale. This mean is higher than 50, the average of the scale. In this sense, the responsibility perceptions of student teachers for student achievement can be said to be higher than average. The responsibility perception of student teachers for student failure was determined to be higher than the responsibility perception for student achievement.

Regarding the third research question, the results were given in Table 2 about the relationship of gender with teachers’ sense of efficacy, self-efficacy perception regarding teaching process, and responsibility perception for achievement.

Table 2. The results about the effect of gender on teachers’ sense of efficacy, self-efficacy perception regarding teaching process, and responsibility perception

| Scale and sub scales                                | Gender | N    | Mean  | SD    | DF  | t-value | p    |
|-----------------------------------------------------|--------|------|-------|-------|-----|---------|------|
| ** Teachers’ sense of efficacy scale**               |        |      |       |       |     |         |      |
| Efficacy in student engagement                      | Female | 204  | 162.71| 18.39 | 244 | -.209   | .001*|
|                                                   | Male   | 42   | 161.44| 20.92 |     |         |      |
| Efficacy in instructional strategies                 | Female | 204  | 52.54 | 6.11  | 244 | -1.006  | .030*|
|                                                   | Male   | 42   | 51.76 | 7.33  |     |         |      |
| Efficacy in classroom management                     | Female | 204  | 55.21 | 7.33  | 244 | .581    | .000*|
|                                                   | Male   | 42   | 54.46 | 7.71  |     |         |      |
| **The Scale of self-efficacy perception regarding teaching process** |    |       |       |       |     |         |      |
| Planning teaching process                           | Female | 204  | 157.87| 18.19 | 244 | -.909   | .001*|
|                                                   | Male   | 42   | 156.54| 16.89 |     |         |      |
| Applying teaching process                           | Female | 204  | 31.96 | 3.72  | 244 | .061    | .001*|
|                                                   | Male   | 42   | 30.00 | 3.87  |     |         |      |
| Evaluating teaching process                         | Female | 204  | 75.62 | 8.57  | 244 | -.180   | .021*|
|                                                   | Male   | 42   | 74.35 | 10.20 |     |         |      |
| **The scale of responsibility achievement for student achievement** |    |       |       |       |     |         |      |
| Responsibility for student achievement               | Female | 204  | 55.88 | 7.74  | 244 | -.909   | .001*|
|                                                   | Male   | 42   | 50.00 | 6.98  |     |         |      |
According to the results of independent t-tests in Table 2, it was determined that female student teachers indicated positive and significant teachers’ sense of efficacy than males did in both the overall scale and its sub scales ($t(244)_{overall\ scale} = -.209, p<0.05, t(244)_{student\ engagement} = 1.006, p<0.05; t(244)_{instructional\ strategies} = .581, p<0.05; t(244)_{classroom\ management} = -.190, p<0.05$).

When the results about self-efficacy perceptions of student teachers regarding teaching process were compared in terms of gender with independent t-test, female student teachers showed statistically positive significant difference in the overall scale and its sub scales ($t(244)_{overall\ scale} = -1.212, p<0.05, t(244)_{planning\ teaching\ process} = .061, p<0.05; t(244)_{applying\ teaching\ process} = -.180, p<0.05; t(244)_{evaluating\ teaching\ process} = .948, p<0.05$).

According to the findings of independent t-tests about responsibility perception for student achievement, it was indicated that there was no statistically significant difference in favor of female student teachers in the overall scale and its sub scales ($t(244)_{overall\ scale} = -.909, p<0.05; t(244)_{responsibility\ for\ student\ achievement} = .269, p<0.05; t(213)_{responsibility\ for\ failure} = -.480, p<0.05$).

In Table 3, there could be found correlational results in terms of the variables of teachers’ sense of efficacy, self-efficacy perception regarding teaching process, and responsibility perception for student achievement.

According to these results, positive, moderate and high correlations were found among teachers’ sense of efficacy, self-efficacy perception regarding teaching process, and responsibility perception for student achievement. In this sense, teachers’ sense of efficacy positively correlated with self-efficacy perception regarding teaching process, and responsibility perception for student achievement and these correlations were high ($r=0.797$ and $r=0.748$, $p<0.01$). There exists positive and moderate correlation among planning teaching process, applying teaching process, and evaluation teaching process (between $r=0.436$ and $r=0.444$, $p<0.01$). Furthermore, responsibility perception for student achievement positively and moderately correlated with teachers’ sense of efficacy and its sub scales (between $r=0.301$ and $r=0.399$, $p<0.01$). Also, there are positive and moderate correlations between teachers’ sense of efficacy with sub scales, and self-efficacy perception regarding teaching process (between $r=0.352$ and $r=0.478$, $p<0.01$).
5. Conclusion and Discussion

As the result of the study, teachers’ sense of efficacy, self-efficacy perception regarding teaching process, and responsibility perception for student achievement were determined to be high for student teachers. There could be found different results for different study groups. However, most of the studies indicate that teachers’ sense of efficacy is moderate (Ekici et al. 2010; Üstüner et al., 2009). In some studies, self-efficacy perceptions regarding teaching process were also found as high (Çoklar & Odabaşı, 2009; Gökmen et al., 2011; Öğuz, 2009; Özdemir, 2008). On the other hand, student teachers take more responsibility for student achievement than student failure (Ekici, 2012a; Ekici, 2012b; Guskey, 1987; Güvenç, 2011; Pratt, 1985). However, it is a significant result for student teachers to have high responsibility perception for student failure as it shows that this result is a predictor of high teachers’ sense of efficacy, and self-efficacy perception regarding teaching process.

For the second research question, female student teachers indicated higher teachers’ sense of efficacy, self-efficacy perception regarding teaching process, and responsibility perception for student achievement than male student teachers did. The reasons for that result might be the high number of female student teachers in the study or point of view that teaching profession is suitable for females. When the literature was analyzed, it was found that there wasn’t correlation between gender and teachers’ sense of efficacy in some studies (Akbaş & Çelikkaleli, 2006; Arsal, 2006; Cakiroğlu et al., 2005) while others suggested the presence of correlation (Britner & Pajares, 2006; Ekici, 2005). For self-efficacy perception regarding teaching process, there could not be found correlation with gender in some studies (Özdemir, 2008). However, there are some studies indicating correlation with gender (Öğuz, 2009; Çoklar & Odabaşı, 2009). Furthermore, Güvenç (2011) has suggested there is no significant difference between gender and responsibility perception for student achievement. There are also some studies implying female student teachers take more responsibility, and their locus of control points were higher (Guskey, 1981a; Pratt, 1985).

Considering the relationship between them, there are positive and moderate-high relationships among student teachers’ self-efficacy perceptions, self-efficacy perceptions regarding teaching process and responsibility perception for student achievement. In this sense, it is of vital importance to extrapolate positive and high correlations among the overall scores of these three scales (r=0.797 and r=0.748, p<0.01).

To conclude, having sufficient self-efficacy perception and high responsibility perception is so essential to be able to become qualified teachers. In this sense, different affective teacher qualifications might be in tandem with each other. The studies indicate that teachers having high self-efficacy and responsibility perception for student achievement succeed in choosing appropriate instructional techniques, providing student achievement, communicating with students effectively and so on (Anderson et al., 2004; Appleton & Kindt, 2002; Guskey, 1988). Therefore, it is a necessity for student teachers to be trained in terms of high self-efficacy and responsibility perception.

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