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Development of a scale for elementary students' attitudes toward schooling

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Abstract

School dropout is a concern for Turkey. Factors associated with increased likelihood of school dropout include prior failure, non-acceptance by teachers and peers, poor school attendance and low level of involvement in school. This study has been part of a project investigating the problem of school drop out in the Kağıthane district in Istanbul. A questionnaire assessing attitudes toward schooling has been developed to determine the school related factors of high school dropout. After the scale was improved based on data from the pilot study, 480 students from 13 schools took part in the study to assess scale's psychometric characteristics.

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Keywords: School dropout; attitudes towards schooling.

1. Introduction

High school dropout is a high priority concern having negative economic and psychosocial consequences (Elmen & Offer, 1993). In Turkey like in most countries the state plays a central role in the education of citizens through laws that govern compulsory schooling (Fuller and Rubinson 1992). However, structural weaknesses in many less developed countries often result in an inadequate supply of education, leading to high drop-out rates at the end of primary school (Filmer and Pritchett 1999; Fuller 1991). Despite state support for mass education, many children in Turkey do not attend any school, and others drop out without finishing primary school (Gök 1999; Özbay 1981; Rankin, & Aytaç, 2006; Ünal and Özsoy 1998).

Factors shown to be associated with increased likelihood of school dropout include prior failure, underachievement, low self-esteem, frequent confrontation and non-acceptance by teachers and peers, poor school attendance, low level of involvement in school (Brooks-Gunn, Guo, & Furstenberg, 1993; Edmondson & White, 1998; Horowitz, 1992; Malloy, 1997).

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Many programs and strategies have been developed to address these issues with youth to prevent students from dropping out. Effective programs have three main components: positive school climate; customized curriculum and instructional program; and promotion of personal, social, and emotional growth (Barr and Parrett, 2001). Modifying the instructional environment, strengthening school membership, developing board policies, and creating alternative high schools have been suggested to prevent drop-out rates (Lunenborg, 2000; Sanders & Sanders, 1998; Weller et al., 1999; Lever et al., 2004).

This study has been part of a project investigating the problem of school drop out in the Kağıthane district of Istanbul. Kağıthane is an area which has been subject to a lot of immigration in the past. Although in the past few years, through the urban transformation acts, many of the squatter settlements have been replaced by modern housing complexes, people who immigrate from the eastern part of Anatolia mostly live in squatter settlements. It is an urban district with quite a large number of factories and work places. Many children are suspected to be illegally working especially in small scale work places. The local authorities have been concerned about the number of children not attending school as well as the high dropout rates. A project was initiated to investigate the reasons for drop out and why children are not sent to school.

The research reported here aimed at determining the characteristics of elementary schools that may lead to school drop-out. For this purpose a questionnaire has been developed. First, the domains of the scale measuring students' attitudes toward school were determined. Then, items were generated to reflect these domains. The items were revised to form the first draft of the scale. This draft was implemented in a pilot study with 53 students. The reliability and validity assessment was carried out in the pilot study. The alpha coefficient was calculated to be 0.82. The wordings of the items were also improved after the pilot study. 480 students from 13 schools from various regions of Kağıthane took part in the main study. The factor structure consistent with the domains provided evidence for five dimensions. The psychometric characteristics of the scale are reported in this paper.

2. Method

The questionnaire to assess students' attitudes towards schooling was developed. First the items were generated. Then they were evaluated and revised. After the item development was complete the scale's psychometric qualities were tested on a pilot sample of 53 elementary school students. The results of the pilot study the scale was administered to 480 elementary students in the Kağıthane district. The reliability and validity measures were assessed on this sample.

2.1. Development of the scale

The following issues were considered as the items of the questionnaire were produced: The physical environment of the schools; psycho social environment/ atmosphere; instruction; administration; guidance and counseling; parent – school relationship; special education; students' study skills; self efficacy; attitudes towards dropout; peer pressure; views about education; students' future aspirations; perceptions about violence in schools. For each of the issues several items were generated. In the initial form there came out to be 165 items. These items were evaluated by a group of experts. The expert group consisted of five faculty members and four research assistants all working at either the department of education or the department of primary education in the schools of education of two universities in Istanbul. After the first evaluation of the expert group the number of items was reduced to 105 items. The set of items were revised and evaluated two more times. In each evaluation every item was considered both from the point of view of the sentence structure and appropriateness for the total of the scale. The number of items were reduced to 73 and then to 60. The final scrutiny of the 60 items led to the form of the scale with 38 items which were administered to the pilot study group. After the results of the pilot study the number of items in the scale dropped down to 29.

2.2. Reliability of the scale

The reliability of the scale was assessed using the Cronbach alpha coefficient for the scale. Item – total correlation coefficients were calculated both on the pilot sample and then on the main sample.

2.3. Validity of the scale

The validity evidence for the scale was obtained in two ways. First, judgmental ratings were evaluated. Then, construct validity was assessed through differential groups. Analysis of variance was run for the attitude scores of the three groups of students differing in levels of perceived achievement.

2.4. Dimensionality of the construct

The dimensionality of the construct “attitude towards school” was determined through factor analyses of the data obtained through the administration of the scale.

2.5. Sample

Two groups of students participated in this study. The pilot study group consisted of 53 7th grade students. 55 % of the students were female. 20 % of the mothers were high school graduates, 3 % were university graduates. 60 % of the mothers were housewives. 17 % of the fathers were high school graduates, 16 % of the fathers were university graduates. 68 % of the students said they had a person who left school in their families. 2 % of the students worked at a job after school.

The main study group consisted of 480 7th grade students from 13 different schools in the Kagithane district. 53% of the students were female. 84% of the subjects were 13 years old, 12 % were 14 and 3 % were 12 and 1 % were 15 years old. Majority of the mothers had only elementary school education. Only 10% of the mothers were high school graduates and 3% were university graduates. 15 % of the fathers were high school graduates and 6% were university graduates.

70 % of the students were born in Istanbul. Only 3 % said that their families were originally from Istanbul. 48% said that they owned the house they were living in. Average number of people living in their houses was 5. 40 % said that their families had a car. 55% said that they owned a computer. 40 % said they had access to the internet.

3. Results

3.1. Reliability of the scale

The scale was administered to the pilot sample. The Cronbach alpha coefficient calculated for the 38 items was calculated to be 0.82. Data collected on the main sample (n=480) from the 29 item scale was analyzed. The Cronbach alpha coefficient was found to be 0.80. Item total correlation coefficients were satisfactory. The lowest item total correlation value was found to be 0.17.

3.2. Validity of the scale

The construct validity evidence for the scale was obtained in two ways. First, judgmental ratings were evaluated. The opinions of the group of nine experts confirmed the appropriateness of the items for assessing attitudes towards school. Then, construct validity was assessed through examination of the scores of differential groups. Analysis of variance was run for the attitude scores of the three groups of students differing in levels of perceived achievement. The students were asked about how they perceived their achievement. They were to rate their achievement level as 1 “low”, 2 “medium” or 3 “high” . The students were grouped according to their levels. There were significant differences in the attitude scores ($F=22.07$; $p<.01$). Post hoc analyses indicated that the attitudes of the high

achieving group were significantly more positive than the others. This was accepted as evidence of construct validity considering the relationship between achievement and attitude.

3.3. Dimensionality of the construct

The scale had 38 items which were administered to the sample of the study. The number of items which were directly related with the students' attitudes was 29. The items related with student's opinions about dropout were not included in the factor analysis. These nine items were considered separately.

The dimensionality of the construct "attitude towards school" was determined through factor analyses of the data obtained through the administration of the scale. Principle component analysis of the scores for 29 items with Varimax rotation indicated five factors with eigenvalues greater than 1 explaining 40% of the variance. The first factor could be named as "attitude about learning". Sample items would be "I hand in my assignments on time"; "I enjoy learning new things". The second factor indicated "attitudes towards the teachers". Sample items were "Our teachers assign too much homework"; "I like my teachers". The third factor was related with "the attitude towards the school". Sample items included "Our school building is beautiful"; "I like my school". The fourth factor was about school's facilities. Sample items were "We have a science lab that we use for classes"; "We can use the library whenever we want". The fifth factor was related with the perceptions about parent- school relationships. Sample items were: "My parents can see my teacher whenever they want"; "Our families are invited to school trips".

Originally the scale had 38 items. Students' views about dropout were examined using the nine items that were considered separately from the five-factor attitude with 29 items. A total score was calculated on the 29 items indicating a student's overall attitude towards school. As the frequency distribution of these scores on the 29-item part was examined, it was observed that they were distributed normally.

To determine the students' over all opinions about school dropout, their responses to the related items were observed separately. 88 % of the students said "Yes" to respond to the item "I want to go to high school". To the item "I go to school because it is compulsory" 12% said "Yes". 43% of the students said "Yes" as a response to the item "I have friends who dropped out of school". 32 % of the students claimed that "The only reason for dropout is families' economic situation". 46 % marked "Yes" responding to the item "Our friends who need to work have more reason to drop out of school". 26% of the students said "Yes" as a response to the item "My friends drop out of school because of underachievement". To the item "The students who smoke and have drinking problems are more likely to drop out of school" 70 % responded as "Yes". 72 % of the students agreed that "The students who are violent in school are most probably low achievers". 47% of the students confirmed the statement "Children who are victims of violence are more likely to drop out of school".

4. Discussion and Conclusion

This study was carried out with the purpose of developing an instrument to assess students' attitudes towards school and obtain information about their views about school dropout. It was thought that a scale addressing students' perceptions about the quality of schools would help unfold the reasons behind dropout since, the literature on school dropout indicate the relationship between quality of schools and dropout rates (Card & Krueger, 1992; Ehrenberg, & Brewer, 1994).

The questionnaire contained 38 items 29 of which pertained to the attitudes of students towards school. The 29 item part was shown to be a reliable and valid instrument for assessing attitude. A total score indicating attitude could be obtained from these 29 items. The scale was shown to have five factors which could also be used as subscales. The total attitude scores on the 29 item part obtained from the sample of 480 students were distributed normally. The remaining nine items pertaining to the students' views about school dropout were designed to be analyzed separately. The percentage of students agreeing with each of these nine statements provided information about students' views. The examination of the responses to these nine items was interpreted. According to the seventh grade students economic reasons were important for school dropout. But, the students emphasized smoking and drinking problems and violence and underachievement as more critical reasons for school dropout. It was concluded that the new scale could be used in studies investigating school dropout. Both researchers and counselors could benefit from the findings.

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