Relationship between social competence, learning motivation, and school anxiety in primary school

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Abstract

The purpose of the present study is to assess relationship between social competence, learning motivation and school anxiety among 1st and 2nd grade pupils in Lithuania. Subjects were 124 pupils (47 boys and 77 girls) attending 1st (63 subjects) and 2nd (61 subjects) grade in primary school in Kaunas, Lithuania. Results of the study revealed that higher social competence of primary school pupils was related to higher learning motivation (r = .382, p < .001) and lower school anxiety (r = - .487, p < .001). Higher school anxiety was linked to lower learning motivation (r = - .207, p= .025).

1. Introduction

Currently it is widely recognized that successful adjustment at school requires not only cognitive competences, but social competence as well (Bernard, 2006; Denham et al., 2009; Ladd et al., 2006). We define social competence as a person’s ability to apply social skills effectively in order to reach his/her goals in social interactions. At the time of entry into the primary school social competence includes such social skills as self-control, self-esteem, ability to understand and follow directions and rules, conflict resolution skills, communication, cooperation, and relationship skills (Forget-Dubois et al., 2007; Sassu, 2007). According to Webster-Stratton and Reid (2004), children, who lack social competence, do less well in school – they are more likely to be rejected by their peers and get less positive feedback from teachers, which often results in more off task behavior and less instruction time.

Research on the role of social competence in primary school adjustment often focuses link between social competence and academic achievement. There is ample evidence of positive relationship between these two variables (Elias & Haynes, 2008; Magelinskaitė, 2011; McCleland et al., 2006). However, relationship between primary school children’s social competence and non-academic adjustment indicators has received little research attention. One of the few exceptions is a recent study by Magelinskaitė (2011), which has revealed that social competence at the beginning of the 1st grade was strongly linked to quality of pupil-teacher relationship and moderately correlated with popularity in class half a year later.

Two other adjustment variables, which have received virtually no attention of social competence researchers, are school anxiety and learning motivation. While both of these variables are important indicators of children's
adjustment at primary school in their own right, they are also linked to academic achievement. The importance of anxiety for academic outcomes was demonstrated in the research by Duchesne et al., (2008), which showed that high anxiety in elementary school predicted non-completion of high school. Galla and Wood (2012) suggest that ability to down-regulate excessive anxiety might help to free up working memory resources required for academic work, which in turn might facilitate learning and performance. As social relationships constitute a significant source of anxiety and insofar in previous studies social competence has been found to be related to better relationships with both peers and teachers, this provides grounds for our 1st hypothesis that there is a negative relationship between social competence and school anxiety of primary school pupils.

Berhenke et al. (2011) points out that motivation is related to academic achievement even when controlling for IQ. Motivation can lead children to pursue opportunities to learn, which is likely to result in increased effort, more practice, faster skill development and ultimately higher achievement (Aunola et al., 2006). Research on motivation in primary school children is rare, which may be due to difficulties in assessing motivation at this age (Berhenke et al., 2011). The links between social competence and learning motivation in primary school have never been studied. As academic motivation has been shown to have inverse links with anxiety in both primary and middle school samples (Gottfried, 1985, 1990), we hypothesize that there is a positive relationship between learning motivation and social competence of primary school pupils.

2. Method

2.1. Participants and procedure

Participants were 124 children (47 boys and 77 girls) attending the 1st grade (modal age 7 years) and the 2nd grade (modal age 8 years) at a primary school in the second largest city in Lithuania. Recruitment of subjects entailed participating class teachers in distributing information letters and consent forms to parents via children’s take-home folders. Overall participation rate was 78%. Children were not excluded based on ethnicity, age, socioeconomic background, or any other factor; all students were eligible to participate in the study.

Class teachers completed questionnaires assessing social competence and school anxiety of participating pupils. Children completed a questionnaire assessing their learning motivation. As all children had sufficient reading skills and attention spans to answer the necessary number of questions, written questionnaires were distributed to children in small groups of up to 6 children in each. Children completed the questionnaire under supervision of the principal investigator. It took about 20 minutes for children to complete the questionnaire.

2.2. Measures

2.2.1. Social competence

Teachers rated social competence of pupils on the 35-item Primary School Social Competence Scale (PSSCS) developed for the present study. The scale was developed on the basis of three instruments: the Social-Emotional Readiness Scale of the Early Development Instrument created by Janus and Offord (2007); Social Emotional School Readiness Scale developed by Bustin (2007), and the Social Competence Inventory developed by Rydell et al. (1997). While all of the aforementioned instruments overlap significantly, each tends to overlook some significant aspects of social competence. Furthermore, when used with young children, some items tend to show the ceiling effect and hence fail to differentiate between children with high and low social competence. Thus for the present study we selected those items, which comprehensively cover all important aspects of social competence and do not show the ceiling effect. Sample items are “Is able to find solutions or compromises when involved in a conflict”, “Is liked by his/her peers”. Teachers were asked to score items on 6-point Likert scale (1 = very rarely to 6 = very often). The 35-item instrument displayed excellent reliability (Cronbach α = 0.95).

2.2.2. School anxiety
School anxiety of children was measured by the School Anxiety Scale (SAS) developed by Lyneham et al. (2008). This scale was completed by teachers. Results of a pilot study had shown that some items tend to show ceiling effect, thus for the present study 12 out of the 16 original items were used. Sample items are “This child speaks only when someone asks a question of him/her” and “This child worries what other people think of him/her”. Items were rated on a 4-point Likert scale (1 = very rarely/never to 4 = very often). The scale had excellent reliability (Cronbach α = 0.91).

2.2.3. Learning motivation

Learning motivation was measured using a scale created on the basis of the Elementary School Motivation Scale (ESMS) developed by Guay et al. (2010). The original scale had 27 items assessing internal motivation, identified regulation, and controlled regulation for reading, writing, and mathematics, but again our pilot study showed that a significant number of items are affected by the ceiling effect. Removal of such items resulted in the 16-item scale. Sample items are “I read even when I don’t have to” and “Writing interests me a lot”. Items were rated on a 3-point Likert scale (1 = never to 3 = very often). The shortened version of the scale proved to be very reliable (Cronbach α = 0.87).

3. Results

3.1. Descriptive statistics

Table 1 provides the means and standard deviations for the study variables. Independent samples t-tests revealed no differences between girls and boys on school anxiety (t = -.204, p = .839), and learning motivation (t = -.678, p = .500), but there was significant difference in social competence (t = -2.639, p = .01) – boys (M = 156.10, SD = 31.34) were significantly less socially competent than girls (M = 171.09, SD = 29.56). Thus, testing of hypotheses involving social competence will be done separately for boys and girls.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social competence</td>
<td>124</td>
<td>95</td>
<td>210</td>
<td>165.41</td>
<td>30.99</td>
</tr>
<tr>
<td>School Anxiety</td>
<td>124</td>
<td>12</td>
<td>41</td>
<td>22.56</td>
<td>7.89</td>
</tr>
<tr>
<td>Learning motivation</td>
<td>124</td>
<td>21</td>
<td>48</td>
<td>36.17</td>
<td>6.18</td>
</tr>
</tbody>
</table>

Testing of normality of variable distributions using one-sample Kolmogorov-Smirnov test revealed that distribution of social competence (Z = 1.154, p = 0.139), school anxiety (Z = 1.182, p = 0.122), and learning motivation (Z = 1.199, p = 0.113) were not significantly different from normal. Therefore, parametric tests may be used for testing of the hypotheses.
3.2. Relationships between social competence, learning motivation, and school anxiety

As a statistically significant difference in social competence scores between girls and boys was found, correlations between social competence and other variables were computed separately for boys and girls. For both genders there was a strong negative correlation between social competence and school anxiety (r = -.521, p < 0.001 for boys and r = -.507, p < 0.001 for girls). Total sample correlation was r = -.487, p < .001.

For girls social competence was also moderately related to learning motivation (r = .419, p<0.001). For boys this correlation approached a moderate level, but did not reach statistical significance (r = .286, p = .052). Total sample correlation between social competence and learning motivation was moderate (r = .382, p < 0.001).

Finally, a moderate negative correlation (r = -.207, p = .025) between learning motivation and school anxiety was found in the total sample. This indicated that higher school anxiety was linked to lower learning motivation.

4. Discussion

Results of the study supported both hypotheses. As predicted, social competence of primary school children was inversely related with school anxiety. This link was both highly significant and strong. This result is similar to that obtained by Galla and Wood (2012), who found that emotional self-efficacy moderates anxiety-related impairment on a math test. Galla and Wood believe that conviction of one’s competency might translate into the use of effective coping strategies, which in turn reduces the cognitive load placed on working memory, thereby enabling more processing resources to handle academic work.

Also as predicted, there a positive correlation between social competence and learning motivation was found. This relationship was highly significant and moderately strong for girls, but not for boys. We believe that this gender difference in significance of the relationship may be due to a small sample size. The relationship between social competence and learning motivation may be in part explained by the negative correlation between learning motivation and school anxiety – social competence may act to reduce anxiety and lowered anxiety may enhance learning motivation.

Viewed in light of the earlier results obtained by Magelinskaitė (2011), this result suggests interesting ideas concerning further research into the mechanisms whereby social competence is linked to academic achievement. It might be predicted that social competence results in better social relationships in school, which in turn reduce school anxiety and increase learning motivation and thus provides for better academic performance. Further longitudinal research is necessary to test this prediction.

These findings must be considered in light of several limitations. First, the size of our sample was relatively small, which in case of relationship between social competence and learning motivation leaves a room for some speculation concerning significance of the results. Second, the cross-sectional nature of data does not allow for any conclusions concerning causality of the identified significant relationships. Third, participants in our sample was quite a homogenous group of urban white children, which may potentially limit generalization of findings to other populations.

Despite these limitations, we showed that social competence is linked to important non-academic indicators of adjustment in primary school. This study offers useful data for directing future research investigating importance of social competence for adjustment of primary school pupils.

References

Bernard, N. E. (2006). It’s time we teach social-emotional competence as well as we teach academic competence. Reading & Writing Quarterly, 22, 103-119.


