Child Social Skills: The Roles of Child Temperament and Teacher-child Closeness

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Abstract. In this study, 456 children were investigated to explore the influence of temperament and teacher-child closeness on children's social skills. Mothers completed the children's temperament scale, teachers completed the teacher-child relationship scale and assessed children's social skills. The results showed that children's temperament was related to children's social skills, teacher-child closeness was related to children's social skills, and had a moderating role between child temperament and children's social skills.

Introduction

Social skills are learned, socially acceptable behaviors that allow a person to positively interact with others [1]. Social skills are important for success in both academic and peer-group settings. Essential social skills for success at school, include listening to others, following classroom rules, complying with teacher directives, asking for help, cooperating with peers, and controlling temper in conflict situations [1, 2]. Teacher-child relationship plays an important role in child social skills [3, 4]. The available evidence indicated that not only do teacher–child relationships serve as a protective factor for high-risk children, but positive relationships also facilitate children’s development [5]. Individual differences in child temperament can also predict social skills. For example, those who have low control effortful and high shy are tend to show more problematic social behavior [3, 4]. Teacher-child relationship was association with social skills and moderated the association relationship between shy and social adjust [4], at high levels of child shyness, social competence ratings improved as teacher-child closeness increased. The qualities of teacher-child relationships can effectively support children’s social competence depending upon their temperamental characteristics [3].

Study showed that there is significant difference between boys and girls [6], we control the child's sex. The purpose of the current study was to examine the moderation role of teacher-child closeness in the association between child temperament and social skills in preschool.

Methodology

Sample

114 teachers and 456 children from 6 kindergartens in Shanghai were randomly selected as subjects. Among them, there are 42 kindergarten teachers and 168 children in large class, 36 teachers and 144 children in middle class, 36 teachers and 144 children in small class, 228 boys and 228 girls.

Instruments

The Student-Teacher Relationship Scale (STRS). The study used Student-Teacher Relationship Scale (STRS) to assess teacher-child closeness. There were some evidence for both test-retest and internal consistency reliability. Pianta (2001) used principal components analysis to derive factors and VARIMAX rotation to obtain factor loadings [7]. The closeness factor had an
eigenvalue of 3.73 and explained 12.9% of total variance. Teachers completed on a 5-option scale that ranges from 1 (definitely does not apply) to 5 (definitely applies). The consistency reliability alpha coefficients of closeness was 0.67.

**Children’s Behavior Questionnaire –Short Form.** Children’s temperament was measured via parent report on the Children’s Behavior Questionnaire –short form [8]. It consists of 36 topics and is divided into three dimensions: extroversion, negative affect and effortful control. Each dimension has 12 topics. The questionnaire was assessed by parents and scored at grade 7. One representative was completely inconsistent with the other seven. The higher the score, the more consistent the description of the topic was with the characteristics of the child. In this study, consistency reliability temperament surgency was 0.61; negative affect was 0.61; effortful control was 0.78.

**Social Skills Rating System.** Social Skills Rating System was used to evaluate children's skills. [9], SSRS has 40 items to evaluate children's social skills. This study mainly adopts five dimensions: interpersonal communication ability (11 items), self-control (12 items), oral assertion (7 items), externalization (6 items), and internalization (4 items). 3 points, from 0 (never) to 2 (often).

**Implementation Process.** Children's Social Skills Questionnaire and Teacher-Child Relations Questionnaire were conducted in kindergartens as a unit. The questionnaire was distributed on the spot in the form of paper and pencil. The questionnaire was collected on the spot. Every teacher completed four teacher-child relations questionnaires. The child temperament questionnaire was filled out by the father or mother. Finally, the researcher brought it back to school. Researchers scrutinized the questionnaires one by one and excluded invalid questionnaires.

**Results and Analysis**

Table 1. The Correlation of Child Temperament, Teacher-child Closeness and Child Social Skills.

|                  | teacher-child | surgency | negative affect | effortful control | interpersonal skills | self-control | verbal assertion | externalizing problems | internalizing problems |
|------------------|---------------|----------|-----------------|------------------|---------------------|--------------|------------------|------------------------|-----------------------|
| teacher-child    | .119*         |          |                 |                  |                     |              |                  |                        |                       |
| surgery          | -.096*        | .186**   |                 |                  |                     |              |                  |                        |                       |
| negative affect  | .026          | -.086    | -.097*          |                  |                     |              |                  |                        |                       |
| effortful control| .139**        | .320**   | .050            | -.054            |                     |              |                  |                        |                       |
| interpersonal skills | .260**    | .613**   | .153**          | -.132**          | .325**              |              |                  |                        |                       |
| self-control     | .267**        | .477**   | .003            | -.099*           | .317**              | .769**       |                  |                        |                       |
| verbal assertion | .195**        | .571**   | .147**          | -.117*           | .237**              | .790**       | .655**           |                        |                       |
| externalizing problems | -.086    | -.353**  | -.050           | .177**           | -.246**             | -.357**      | -.392**          | -.165**                |                       |
| internalizing problems | -.029    | -.409**  | -.183**         | .152**           | -.238**             | -.402**      | -.291**          | -.192**                | .762**                |

Sex: 1 represents girls; 0 represents boys.

Teacher-child closeness was positively correlated with surgency ($r = 186, P <.01$). Teacher-child closeness was positively correlated with effortful control ($r = 320, P <.01$), positively correlated with interpersonal skills ($r = 613, P <.01$), positively correlated with children's self-control ($r = 477, P <.01$), and positively correlated with children's verbal assertion($r = 571, P <.01$), significantly
negative correlation with externalizing problems \((r = -.353, P < .01)\), and significantly negative correlation with internalizing problems \((r = -0.409, P < .01)\). Child surgency was positively correlated with interpersonal skills \((r = 0.153, P<.01)\), positively correlated with verbal assertion \((r = 0.147, P<.01)\), negatively correlated with internalization \((r = -0.183, P<.01)\). Child negative affect was negatively correlated with interpersonal skills \((r = -0.132, P<.01)\) and negatively correlated with self-control \((r = -0.099, P <.05)\), significantly negatively correlated with verbal assertion \((r = -0.117, P <.01)\), positively correlated with externalizing problems \((r = 0.177, P <.01)\), positively correlated with internalizing problems \((r = 0.152, P <.01)\). Children's effortful control was positively correlated with children's interpersonal skills \((r = 0.325, P <.01)\), and positively correlated with children's self-control \((r = 0.317, P < .01)\), significantly positively correlated with children's verbal assertion \((r = 0.237, P <.01)\), negatively correlated with children's externalizing problems \((r = -0.246, P <.01)\), and negatively correlated with children's internalizing problems \((r = -0.238, P <.01)\).

| Table 2. Predicting Interpersonal Skills from Teacher-child Closeness and Temperament. |
|----------------|----------------|----------------|----------------|----------------|
| Model          | \(b\)         | Std. Error    | \(\beta\)     | \(t\)          | Sig           | \(\Delta R^2\) |
|----------------|----------------|----------------|----------------|----------------|
| Block 1 constant | 1.464         | 0.020          | 73.380 .000 | 0.436***       |
| child gender   | 0.152         | 0.028          | 0.196         | 5.454 .000    |
| teacher-child closeness | 0.031 | 0.002 | 0.520 | 13.603 .000 |
| surgency       | 0.035         | 0.021          | 0.059         | 1.639 .102    |
| negative affect | -0.060       | 0.021          | -1.105       | -2.932 .004   |
| effortful control | 0.050        | 0.017          | 0.111         | 2.931 .004    |
| Block 2 closeness* surgency | 0.002 | 0.003 | 0.020 | 0.549 .583 | 0.022**|
| closeness * negative affect | 0.002 | 0.003 | 0.022 | 0.606 .545 |
| closeness * effortful control | -0.010 | 0.002 | -0.116 | -4.209 .000 |

| Table 3. Predicting Self-control from Teacher-child Closeness and Temperament. |
|----------------|----------------|----------------|----------------|----------------|
| Model          | \(b\)         | Std. Error    | \(\beta\)     | \(t\)          | Sig           | \(\Delta R^2\) |
|----------------|----------------|----------------|----------------|----------------|
| Block 1 constant | 1.393         | 0.023          | 60.711 .000 | 0.303***       |
| child gender   | 0.157         | 0.032          | 0.196         | 4.891 .000    |
| teacher-child closeness | 0.025 | 0.003 | 0.397 | 9.301 .000 |
| surgency       | -0.042        | 0.024          | -0.070       | -1.742 .082   |
| negative affect | -0.053       | 0.024          | -0.089       | -2.233 .026   |
| effortful control | 0.072        | 0.020          | 0.153         | 3.634 .000    |
| Block 2 closeness* surgency | 0.004 | 0.004 | 0.042 | 1.067 .286 | 0.019**|
| closeness * negative affect | 0.004 | 0.004 | 0.039 | 0.969 .333 |
| closeness * effortful control | -0.010 | 0.003 | -0.142 | -3.421 .001 |

Table 2 showed that teacher-child closeness has a significant predictive effect on children's Interpersonal skills \((\beta = 0.520, P <.001)\). Children's negative affect had a significant predictive effect on Interpersonal skills \((\beta = -0.105, P <.01)\). Children's effortful control had a significant predictive effect on Interpersonal skills \((\beta = 0.111, P <.01)\). The interaction of child temperament and teacher-child closeness was statistically significant \((R^2 = 0.022, P<.01)\). Among them, teacher-child
closeness played a moderation role between children's effortful control and interpersonal skills (β = -.156, P < .001).

Figure 1. The Effect of Effortful Control on self-Control—The Moderation Effect of Teacher-child Closeness.

Figure 2. The Effect of Effortful Control on Interpersonal Skill—The Moderation Effect of Teacher-child Closeness.

Table 4. Predicting Verbal Assertion from Teacher-child Closeness and Temperament.

| Model                  | b     | Std. Error | β     | t    | Sig  | ΔR²  |
|------------------------|-------|------------|-------|------|------|------|
| Block 1                |       |            |       |      |      |      |
| constant               | 1.362 | .024       | 56.895| .000 | 0.351*** |
| child gender           | .117  | .034       | .136  | 3.487| .001 |
| teacher-child closeness| .035  | .003       | .517  | 12.435| .000 |
| surgency               | .034  | .025       | .053  | 1.341| .181 |
| negative affect        | -.051 | .025-.081  | -.2.078| .038|
| effortful control      | .019  | .021 .038  | .928  | .354 |
| Block 2                |       |            |       |      |      |      |
| closeness* surgency    | .003  | .004 .028  | .720  | .472| .007 |
| closeness * negative affect | .000  | .004 .003  | .069  | .945 |
| closeness * effortful control | -.006 | .003 .084  | -.2.092| .037|

Table 3 shows that teacher-child closeness had a significant predictive effect on children's self-control (β = .397, P < .001), and children's effortful control had a significant predictive effect on children's self-control (β = .153, P < .001). Children's negative affect had a significant predictive effect on self-control (β = -.089, P < .05). The interaction of child temperament and teacher-child closeness was statistically significant (R² = 0.019, P<.01). Among them, teacher-child closeness
played a moderation role between children's effortful control and self-control (β = -.142, P <.01).

Table 5. Predicting Externalizing Problems from Teacher-child Closeness and Temperament.

| Model                  | b   | Std. Error | β   | t    | Sig  | ΔR²  |
|------------------------|-----|------------|-----|------|------|------|
| Block 1 constant       | .507| .034       | 14.915 | .000 | 0.167***      |
| child gender           | -.037| .048  | -.035 | -.782 | .435      |
| teacher-child closeness| -.024| .004  | -.292 | -6.195 | .000      |
| surgency               | .016| .036    | .020 | .438  | .662      |
| negative e affect      | .120| .035    | .152 | 3.439 | .001      |
| effortful control      | -.097| .029  | -.154 | -3.305 | .001      |
| Block 2                |     |           |      |       |         |      |
| closeness* surgency    | .002| .005  | .014 | .330  | .742 0.009 |
| closeness * negative affect | -.012| .006   | -.095 | -2.111 | .035      |
| closeness * effortful control | .002| .004  | .026 | .568  | .570      |

Table 4 shows that teacher-child closeness had a significant effect on children's verbal assertion (β = .517, P < .001), and children's negative affect had a significant effect on children's verbal assertion (β = -.081, P < .05). The interaction of child temperament and teacher-child closeness was not statistically significant (R² = 0.007, P > 05). Thus, there was insufficient evidence to suggest that the impact of child temperament on internalizing problems depends on the levels of teacher-child closeness.

From Table 5, we can see that teacher-child closeness had a significant effect on children's externalization problem (β = -.292, P <.001). Negative affect of children had a significant effect on children's externalization problem (β = .152, P <.01). Effortful control of children had a significant effect on children's externalization problem (β = -.154, P <.01). The interaction of child temperament and teacher-child closeness was not statistically significant (R² = 0.009, P > 05). Thus, there was insufficient evidence to suggest that the impact of child temperament on internalizing problems depends on the levels of teacher-child closeness.

Table 6. Predicting Internalizing Problems from Teacher-child Closeness and Temperament.

| Model                  | b   | Std. Error | β   | t    | Sig  | ΔR²  |
|------------------------|-----|------------|-----|------|------|------|
| Block 1 constant       | .370| .033       | 11.277 | .000 | 0.208***      |
| child gender           | .012| .046    | .012 | .270  | .787      |
| teacher-child closeness| -.028| .004   | -.344 | -7.482 | .000      |
| surgency               | -.082| .035   | -.103 | -2.367 | .018      |
| negative affect        | .094| .034    | .120 | 2.782 | .006      |
| effortful control      | -.072| .028   | -.116 | -2.548 | .011      |
| Block 2                |     |           |      |       |         |      |
| closeness* surgency    | .000| .005  | -.008 | -.184 | .854 0.008 |
| closeness * negative affect | -.006| .006   | -.050 | -1.142 | .254      |
| closeness * effortful control | .008| .004  | .090 | 2.019 | .044      |

From Table 6, we can see that teacher-child closeness had a significant effect on children's internalization (β = -.344, P <.001), and children's negative affect had a significant effect children's
internalizing problems ($\beta = .120$, $P < .01$). Children's effortful control had a significant effect on children's internalizing problems ($\beta = -.116$, $P < .05$). The interaction of child temperament and teacher-child closeness was not statistically significant ($R^2 = 0.008$, $P > .05$). Thus, there was insufficient evidence to suggest that the impact of child temperament on internalizing problems depends on the levels of teacher-child closeness.

**Discussion**

The results showed that children effortful control predicted children’s Interpersonal skills, self-control and verbal assertion, and had negative effect on children’s internalizing problem. Children's negative affect predicted children’s externalization behavior problem. This is consistent with existing results. More effective control and lower levels of negative impacts are associated with greater empathy, more active social interaction, lower levels of internal problems and social withdrawal [10]. The results showed that teacher-child closeness significantly positively predicted children's self-control, verbal assertion, interpersonal skills, and teacher-child closeness significantly negatively predicted children's internalizing problems and externalizing problems. This is consistent with previous studies. Teacher-child closeness was related to the positive development results of children. From the perspective of attachment, children who have intimate relationship with teachers will form a positive internal working mode, which will be well adapted [11]. This relationship will also provide a warm, relaxed, free and supportive environment for young children, who will use teachers as a safe base to explore the surrounding environment. Teacher-child closeness played a moderation role between children's temperament and social skills, in which teacher-child closeness played a significant role in children's effortful control and interpersonal skill, and teacher-child closeness played a significant role in children's effortful control and self-control. Under the higher teacher-child closeness, children's interpersonal skills and self-control will not increase with the score of effortful control. Under the lower teacher-child closeness, the higher the degree of children's effortful control, the higher their interpersonal skills and self-control. The emergence of intimate relationship between teachers and students is the protection of children's social ability. These findings are consistent with the concept that teacher-child closeness promotes children's social competence and behavior [12, 3]. The idea that teachers create a social environment in which children learn to interact successfully with others is mirrored in the findings of this report: children with closer teacher-student relationships are likely to be learning from these positive interactive experiences and summarizing them as other social relationships. However, it is possible that children with closer teacher-child relationships have better social skills from the outset, thus contributing to the formation of positive teacher-child relationships. The study found that children with supportive teacher-student relationship in the early stage were fonder of and satisfied with kindergartens than other children, and adapted better in kindergartens. When children have a "warm, intimate, open" teacher-student relationship, children will show a high level of adaptation in all aspects of social ability and school adaptation.

By establishing close relationships, teachers can help children feel more comfortable in potentially stressful social environments, so that they can participate in positive social interactions, including social competence behaviors. Teacher training programs should include guidance on developing close relationships with children and understanding how to interact constructively in challenging situations. To avoid conflict with children. Projects aimed at promoting positive relationships between teachers and children, such as bank time. In addition, teachers should be able to identify the different personality characteristics of children in the classroom and provide them with social and teaching support [3].

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