Teacher-child relationship and learning behavior of young children
van Leeuwen, M.G.P.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
CHAPTER 4

Teacher-Child Relationship, Emotional Security and Learning Behavior of Kindergarten Children With and Without Internalizing Problems
Chapter 4: Teacher-Child Relationship, Emotional Security and Learning Behavior of Kindergarten Children With and Without Internalizing Problems

Mirella G.P. van Leeuwen, Helma M.Y. Koomen, Aryan van der Leij, and Clara F. Faber

In two studies, relations were tested between kindergartner's emotional security, involvement and achievement, and teacher's supportive presence in an experimental task setting, in which the familiarity of the teacher was varied. In study I, 38 internalizing and 37 non-internalizing children worked in a small group; in study II, 12 internalizing and 12 non-internalizing children worked alone with a teacher. Insecurity, involvement and supportive presence were observed during the task; achievement was tested afterwards. Internalizing children showed more insecurity than non-internalizing children. In the small group teacher unfamiliarity affected insecurity. For internalizing children working alone, teacher's supportive presence was of significant influence. In both studies there was a strong negative association between insecurity and task involvement. For internalizing children insecurity was significantly related to achievement in study I. These findings indicate the importance of providing internalizing children with a learning environment in which they will feel emotionally secure.
Chapter 4: Teacher-Child Relationship, Emotional Security and Learning Behavior of Kindergarten Children With and Without Internalizing Problems

4.1 Introduction

Children from three years and up are increasingly able to function without their primary caregivers. Nevertheless, young children’s feelings of security are still rather unstable and easily stressed (Bowlby, 1969/1984). Cummings and Davies (1996) have argued that whenever children feel insecure a regulatory system becomes activated and strategies are employed to promote security. Obtaining this security, however, takes up the time and energy that otherwise could be used for exploration of their environment and learning (Boekaerts, 1993). One of several possible strategies for a child to cope with emotional insecurity is to turn to the teacher and derive security from him or her (Koomen, Hoeksma, Keller & De Jong, 1999). The teacher can provide the child with a secure base from which the child can explore the learning environment. The present chapter describes two studies that focus on the relation between emotional security and learning behavior in children with and without internalizing problems, in an experimental task situation in which the familiarity with the teacher is being varied. In the first study children worked in a small group of classmates with either their regular or a strange teacher, in the second study children were examined in a dyadic setting with either their own or a strange teacher.

4.1.1 Emotional Security

Cummings and Davies (1996) regard emotional security as a latent construct, which serves as a set goal by which children regulate their functioning in social contexts. They state that children’s sense of security is the product of multiple influences, personal (internal) as well as environmental (external). Children’s emotional security in a particular social context constantly reflects the immediate conditions of the Person X Environment transaction, but also must be understood in terms of biological dispositions and temperamental processes, historical experiences with similar social contexts, and the interaction over time between the products of biological and social systems (Cummings & Davies, 1996).

An example of an internal factor that may influence children’s emotional security in challenging situations is the presence of internalizing problems, also referred to as difficulties of psychological overcontrol (Rubin, Stewart & Coplan, 1995). Internalizing problems can include inhibited or social withdrawn behavior, anxiety, fears and depression. In young children the most prominent manifestation of internalizing problems is behavioral inhibition (Rubin et al., 1995). Kagan, Reznick and Snidman (1987) have suggested that children showing inhibited behavior may be biologically predisposed to be easily aroused when confronted with unfamiliar and cognitively challenging events. As a result, internalizing children may feel emotionally insecure more easily compared to other children.
4.1.2 Emotional Security and Substitute Caregivers

If a child feels distressed during school hours, the kindergarten teacher is the most obvious person to turn to. In this respect it is interesting to what extent this substitute caregiver can positively influence children's emotional security. Barnas and Cummings (1994) and Cummings (1980) observed that distressed children in day care centers initiated attachment related behavior towards their teachers. Several other authors also support the idea that teachers of young children can fulfill the role of a substitute attachment figure (Ainsworth, 1991; Attili, 1985; Attili, 1986; Hinde, Easton, Meller & Tamplin, 1983; Koomen et al., 1999; Koomen & Hocksma, 2002). In addition, some studies have shown that parent-child and teacher-child relationships are very similar. A study by Goossens and Van Ijzendoorn (1990) revealed that attachment distributions of infant-caregiver dyads in daycare, did not differ significantly from infant-parent distributions. Pianta, Nimetz and Bennet (1997) found similar patterns in mother-child and teacher-child relationships for preschool and kindergarten children.

Ainsworth, Blehar, Waters and Wall (1978) discovered that the quality of attachment of young infants with their caregivers highly depended on the sensitivity of the caregiver to the child's signals. Erickson, Sroufe and Egeland (1985) emphasized the importance of the supportive presence of the primary caregiver for children’s school adjustment. Analogously, Van Lieshout (1990) has argued that to develop a warm relationship with a child, teachers have to be supportively present, i.e. they have to be sensitive to the child’s emotional state and respond adequately to signals concerning his or her well-being. Accordingly, it is reasonable to suggest that the sensitivity or supportive presence of the teacher may affect the child’s functioning in the school situation.

In addition, the familiarity with the teacher is considered important. Studies of Barnas and Cummings (1994) and Cummings (1980) showed that children in day care centers initiated attachment-related behaviors more often towards regular than towards incidental caregivers and that regular caregivers were more successful in easing distressed children. In accordance with this, Bowlby (1969/1984) has mentioned that stability and continuity of a relationship are preconditions for the development of a secure attachment relationship.

4.1.3 Emotional Security and Learning

Regulating emotions costs time and energy and may interfere with the learning process. Several authors have argued that in case of distress, individuals are primarily focused at preserving an acceptable level of well-being (Cumming & Davies, 1996; Lazarus, 1982; Lazarus & Folkman, 1984). For children experiencing stressful events in school, emotion regulation may be at the expense of involvement with cognitive tasks (Boekaerts, 1993). Given that involvement is considered to mediate learning (Harskamp, Pijl & Snippe, 1991; Ladd, Birch & Buhs, 1999; Schonewille & Van der Leij, 1995; Skinner & Belmont, 1993), feelings of insecurity may result in lower performance.
According to attachment theory, attachment figures provide children with a secure base from which they can explore their environment (e.g., Ainsworth & Bell, 1970; Bowlby, 1969/1984; De Ruiter & Van IJzendoorn, 1993). From a slightly different perspective, the use of an attachment figure to achieve security can be described as one of several ways of regulating emotional security (Koomen et al., 1999). In school, children will presumably use their teacher to derive security from. When the teacher makes them feel secure they will become more easily involved with cognitive tasks, and as a result they may perform better. Several studies confirm the idea that a positive affective relationship with the teacher can favorably influence children’s cognitive achievement. Howes, Hamilton and Matheson (1994) found that children, who had a secure relationship with their childcare teacher, were more involved in complex peer play. In addition, Pianta et al. (1997) revealed that the quality of the teacher-child relationship predicted children’s performance on a measure of concept development in preschool. Birch and Ladd (1997) also observed that close relationships between children and teachers were positively related to academic performance.

**Figure 4.1 Theoretical Model**

Combining theories and findings from the literature, a model has evolved which represents the theorized relationships between the variables in the two studies (Figure 4.1). Children's emotional security in task situations is considered to be influenced by several internal and external factors. Emotional security, on its turn, influences children's involvement with cognitive tasks. Finally, involvement is supposed to influence children's performance on these tasks.

**4.2 Study I**

**4.2.1 Hypotheses**

The main goal of study I was to test the theoretical model concerning the relations between emotional security, task involvement and learning behavior. Internalizing and non-internalizing children were selected to participate in an experiment. Internalizing difficulties were considered an internal factor influencing emotional security. The familiarity with the teacher was introduced as an external factor. Half of the children worked on a picture book reading task with their own regular teacher, the other half worked with an unfamiliar teacher.
In addition, the supportive presence of the teacher was considered as a second external factor of influence on children's feelings of security.

The first expectation was that internalizing children would show more emotional insecurity in the experimental task situation than non-internalizing children. Second, it was expected that both internalizing and non-internalizing children would feel more insecure when they were working with a strange teacher, as compared to their regular teacher. In addition, it was expected that the impact of the strange teacher would be stronger for internalizing than for non-internalizing children. Furthermore, it was expected that the supportive presence of the teacher would have a positive influence on children's emotional security, for both internalizing and non-internalizing children.

Emotional security was supposed to be a necessary but not sufficient precondition for involvement. It was therefore expected that feelings of insecurity would decrease involvement with the task for both internalizing and non-internalizing children. In case of relative security, on the other hand, it was believed that other factors such as lack of interest in the subject or several environmental factors could still negatively influence their involvement. In accordance with this, it was expected that the relationship between emotional security and involvement would be stronger for internalizing children than for non-internalizing children. The last hypothesis involved the relation between involvement and achievement. It was expected that stronger involvement would lead to higher performance on the task for both groups of children.

4.2.2 Method

Participants and Design.

The regular teachers of 19 participating kindergarten classes of 12 Dutch primary schools filled out a short questionnaire on internalizing and externalizing behavior for all children in their classes (N = 410). Based on this questionnaire, in each class two children with high scores on internalizing behavior and average scores or below on externalizing behavior were selected and matched with two children from the same class and same age that scored average or below on both internalizing and externalizing behavior. If possible, children were matched with a child of the same sex. After gathering the data, one selected child had to be excluded from the experiment due to disruptions of the video-taped task session, resulting in a group of 38 target children with internalizing problems and 37 target children without internalizing problems. These target children (29 boys and 46 girls; M age = 64.8 months, SD = 7.7 months) were assigned to four experimental groups that involved an internalizing child, working on a task with a strange teacher (Condition 1; N = 19); a non-internalizing child, working with a strange teacher (Condition 2; N = 19); an internalizing child, working with the regular teacher (Condition 3; N = 19); and a non-internalizing child, working with the regular teacher (Condition 4; N = 18). In addition, in each class eight other children with average scores or below on both internalizing and externalizing behavior were selected and assigned over the experimental groups by way of matching. Consequently, in each class there were...
four experimental groups, each containing one target child and two non-target children working together on the task with either their regular or a strange teacher. Only the data of the target children ($N = 75$) were used in this study. The "strange teachers" were all students or graduates in educational studies or psychology. They were all experienced in working with groups of young children.

**Procedure.**

On the first day, children read a picture book together with a teacher. This was filmed on videotape for later rating. First, the experimental group with an internalizing target child that was selected to work with a *strange* teacher (Condition 1) was taken out of the class. The children read the picture book together with the strange teacher. Afterwards, the children returned to their class and the group with the non-internalizing target child, working with a *strange* teacher (Condition 2) was taken out of the class to read the book. When this group was ready and had returned to the class, the first group (Condition 1) was again taken to the experimental room to be tested for their recall of the story. The same teacher that had read the book with the children asked them to tell her the story. The target child was tested first. The other two children waited for their turn in the same room, and wore earphones with music to prevent them from hearing the story again. After all three children were tested, the children were brought back to their classes, and the group with the non-internalizing child, working with the strange teacher (Condition 2), was taken out of the class to be tested in the same manner.

Next, the groups with respectively the internalizing (Condition 3) and the non-internalizing child (Condition 4) working with the *regular* teacher, read the book together with their teacher and were tested in the same manner as described above. Unfortunately, for one child from condition 3 the test data on the first day are missing because this child was incapable of collaborating on the recall test.

The second test day was meant to examine the retention of the recall of the story after one day. Children entered the experimental room in the same groups and were tested in the same order as the day before. Consequently, the target child of each group was always tested first. Again, children who were not tested wore earphones with music. An experimenter, who was unfamiliar to the children, administered the tests. After all children from one experimental group were tested for their knowledge of the story, a passive vocabulary test was administered to the experimental group as a whole. Alas, for two children the data of the second test day are missing, due to illness.

Finally, the regular class teachers were asked to fill out a questionnaire about the teacher-child relationship for the children participating in the study. For four children the questionnaires were not returned.
Material.

Selection. Children were selected by means of a questionnaire that was based on internalizing or “anxious/withdrawn” and externalizing or “aggressive/disruptive” items from the Behavior Questionnaire for 2- to 6-year olds (BQTSYO; Goossens, Bokhorst, Bruinsma & Van Boxtel, 2002; Goossens, Dekker, Bruinsma & De Ruyter, 2000). Additional items were taken from the Child Behavior Check List (CBCL; Achenbach, 1978) and School Behavior Checklist (SCHOBL-R; Bleichrodt, Resing & Zaal, 1993). The questionnaire consisted of 28 items, 14 measuring internalizing behavior and 14 measuring externalizing behavior. The questions were presented as 4-point Likert scales in which 1 meant absolutely not characteristic and 4 meant very characteristic. Examples of items measuring internalizing behavior are: “Tries to avoid (calling) attention”, “Withdraws quickly”, “Easily distressed”, “Shy” and, “Easily scared”. Examples of items measuring externalizing behavior are: “Bullies other children”, ”Restless” and, “A noisy child”. The internal consistency was satisfying for both the internalizing scale (α = 0.91) and the externalizing scale (α = 0.90).

Task. The teacher read a picture book together with three children (one target and two non-target children) The picture book was new to all children and consisted of 17 colored pages without text. The teacher was instructed to allow the children to discover and tell the story themselves as much as possible, and to correct them or make additions if necessary. In advance, the teacher received a written instruction that explained which elements of the story had to be considered.

Test. Spontaneous recall. Children were tested twice to examine their comprehension and recall of the story. The first test took place several minutes after the picture book was read, the second test was on the next day. In a spontaneous recall task, children were asked to recite the story from memory. This was recorded on audiotape and rated afterwards. For the rating of children’s spontaneous recall, two different factors were regarded. In the first place, the number of visual objects from the picture book mentioned by the child was considered. In addition, the plot score was determined by evaluating the comprehensiveness of the story as recited by the child. A total score on spontaneous recall was computed by adding half the number of visual objects, to the plot score. Spontaneous recall was coded by an independent rater and by the first author. The inter-rater reliability of spontaneous recall was sufficient on both day 1 (r = 0.94) and day 2 (r = 0.96). For further analyses, a mean was computed of the scores on spontaneous recall of both raters.

The correlation of children’s spontaneous recall on the picture book test on the first day with the score on the retention test on the second day was rather high, r(72) = 0.71, p < 0.001. The mean score on spontaneous recall on the first day of testing (M = 7.16, SD = 4.84) did not significantly differ from children’s score on the retention test (M = 7.97 SD = 5.38), t(71) = 1.74, ns. Apparently, after one day, children can still recall a story to the same degree as on the day the story was read.
**Verbalization.** In Chapter 3 of this thesis, inhibited children were found to score relatively low on a categorization and recall task. It was suggested that these children might have been to inhibited to speak and answer questions. The poor results of these children were possibly not caused by a lack of knowledge, but rather by verbal inhibition. To control for this effect, in the present study the level of verbalization was determined by counting the number of words spoken by the child during the picture book test on the first day. The mean number of words spoken by internalizing children (\(M = 63.35, SD = 51.23\)) did not significantly differ from the number of words spoken by non-internalizing children (\(M = 77.92, SD = 51.00\)), \(t(12) = 1.23, ns\).

**Passive vocabulary.** To control for differences in the development of children’s vocabulary, passive vocabulary was measured using the subtest “Word meaning” (Woordbetekenis) from the Revision Amsterdam Child Intelligence Test (RAKIT; Bleichrodt, Drenth, Zaal, & Resing, 1984). There was no difference between internalizing (\(M = 15.31, SD = 5.58\)) and non-internalizing (\(M = 16.92, SD = 3.82\)) children on passive vocabulary, \(t(71) = 1.44, ns\).

**Observational scales.** Three observers, who were unaware of the experimental conditions, watched the videotapes independent of each other after having been trained on the observational scales. One observer watched all the videotapes and rated teacher behavior (i.e. supportive presence), another observer watched all the videotapes and rated the child variables (i.e. emotional insecurity and involvement). The scores of these two observers were used for the data analyses. The third observer rated half of all videotapes for teacher behavior, and the other half for child behavior. The scores of this third observer were used to compute inter-rater reliabilities.

**Emotional insecurity.** The emotional insecurity of the child during the training was measured by means of a 7-point observational scale. The scale was based on the findings of McGrew (1972), who intensively observed newcomer behavior after entry to nursery school. The observers were asked to pay attention to insecure behaviors, such as looking away from the teacher, talking softly, plucking at clothes, and other nervous gestures. The emotional insecurity of the child was rated by choosing between seven alternatives ranging from very low (1) “The child feels totally comfortable and does not feel shy or stressed. The child looks at the teacher and is spontaneous in his or her reactions.” to very high (7) “The child feels insecure during the entire session and is taken up by it completely. The child does not, or very softly, answer questions, and makes a very stressed or shy impression”. This scale was developed in the study described in Chapter 3 of this thesis. The inter-rater reliability for the scale Emotional insecurity in the present study was sufficient, \(r = 0.84\).

**Involvement.** The child’s involvement with the task refers to the energy and commitment with which the task is performed. The involvement during the picture book sessions was rated by means of two different 7-point observational scales “Enthusiasm” and “Persistence” derived from Erickson et al. (1985), adjusted for use within a school setting and described in detail in Chapter 3 of this thesis. Scores on the scales Enthusiasm and Persistence
Teacher-Child Relationship, Security, Learning Behavior and Internalizing Problems

appeared to be strongly related, $r(75) = 0.89$. For this reason, these two scales were combined to one involvement scale. The internal consistency of this new scale was good, $\alpha = 0.94$. The inter-rater reliability for Involvement was sufficient, $r = 0.88$.

Supportive presence of the teacher. The overall supportive presence of the teacher during the training was measured by a 7-point observational scale of the same name, derived from Erickson et al. (1985), adjusted for use within a school setting and described before in Chapter 3 of this thesis. The inter-rater reliability for the scale Supportive presence of the teacher was moderate, $r = 0.69$.

Teacher-child relationship. The relationship of the regular class teacher to the child was measured by means of a translated version of the Student-Teacher Relationship Scale (STRS) of Pianta and Steinberg (1992), adjusted for the Dutch situation. Three aspects of the teacher-child relationship were measured: the degree of closeness in the relationship, the degree to which the child depends on the teacher, and the degree of conflict in the relationship. The questionnaire contained 29 items that were filled out by the regular teacher. All items were measured by means of a 4-point Likert scale in which 1 meant absolutely not relevant and 4 meant strongly relevant. An example of one of the 12 items measuring closeness is: “This child trusts me”. An example of one of the 9 items measuring dependency is: “This student is strongly focused on me during the entire day”. One of the 8 conflict items is: “This child is quickly angry at me”. The internal consistency of closeness, dependency and conflict was examined with help of Cronbach’s alpha. In the present sample the scales measuring closeness ($\alpha = 0.91$), dependency ($\alpha = 0.88$) and conflict ($\alpha = 0.82$) can be considered homogeneous.

To control for initial differences, the quality of the existing teacher-child relationship of the group working with the regular teacher and the group working with an unfamiliar teacher, was compared. There was no difference in closeness, $t(69) = 0.08$, ns, conflict, $t(69) = 1.20$, ns or dependency, $t(69) = 0.36$, ns, of the existing teacher-child relationship between children working with their regular teacher and children working with an unfamiliar teacher. Children working with a regular teacher had close ($M = 3.37, SD = 0.52$), non-conflictive ($M = 1.18, SD = 0.29$) and moderately dependent ($M = 2.25, SD = 0.75$) relationships with their teachers. Children working with a strange teacher also had close ($M = 3.36, SD = 0.52$) non-conflictive ($M = 1.27, SD = 0.40$) and moderately dependent ($M = 2.31, SD = 0.51$) relationships with their regular teachers.

Analyses.

To examine the presumed causality between the variables presented in Figure 4.1, hierarchic regression analysis was performed. With normal regression analysis, it is difficult to indicate how much variance is explained by a certain variable, because often predictors have part of the explained variance in common. However, if a hierarchical sequence of the predictors is presumed on theoretical grounds, a unique partition of the variance is possible with hierarchical regression analysis (De Heus, Van der Leeden & Gazendam, 1995). By
using hierarchical regression analysis one examines step by step how much $x_1$ contributes to the variance in $y$ (total contribution), how much $x_2$ adds that hasn’t already been explained by $x_1$, how much $x_3$ contributes, etcetera. The general procedure in hierarchical regression analysis is:

1. $y = a + b_1x_1 + b_2x_2 + \ldots + b_kx_k + e$ (4.1)
2. $y = a + b_1x_1 + b_2x_2 + \ldots + b_kx_k + \ldots + b_mx_m + e$ (4.2)
3. $\Delta R^2 = R_2^2 - R_1^2$ (4.3)

$R_1$ and $R_2$ (Formula 4.3) are respectively the multiple correlations of the first and second regression equation. If the regression weights of $x_1$ to $x_k$ are no longer significant after inserting $x_m$ (Formula 4.2), this indicates that the influence of $x_1$ to $x_k$ on $y$ is indirect, via $x_m$. If, however, the regression weights of $x_1$ to $x_k$ are still significant after inserting $x_m$, this can be considered an indication that $x_1$ to $x_k$ have a direct influence only (De Heus et al., 1995).

4.2.3 Results

In the first hypothesis the expectation was formulated that children with internalizing problems, would feel more insecure during the experimental situation than non-internalizing children. This was examined by means of a t-test. It appeared that internalizing children ($M = 3.29, SD = 1.59$) indeed showed more emotional insecurity than non-internalizing children ($M = 2.57, SD = 1.48$), $t(73) = 2.03, p < 0.05$.

The second expectation was that children who read the picture book with an unfamiliar teacher would feel more insecure than children working with their own teacher. For both the internalizing and the non-internalizing group this was examined by means of t-tests. Internalizing children who worked with an unfamiliar teacher ($M = 3.84, SD = 1.57$) felt more insecure than internalizing children working with their regular teacher ($M = 2.74, SD = 1.45$), $t(36) = 2.25, p < 0.05$. In addition, non-internalizing children reading the book with an unfamiliar teacher ($M = 3.12, SD = 1.52$) also felt more insecure than non-internalizing children reading the book with their regular teacher ($M = 2.00, SD = 1.24$), $t(35) = 2.42, p < 0.05$. Being instructed by an unfamiliar teacher indeed evokes insecurity within all children.

An additional expectation was that the association between familiarity with the teacher and emotional insecurity would be stronger for internalizing children. To examine this, an ANOVA was performed with emotional insecurity as dependent variable and internalizing behavior and familiarity with teacher as independent variables. There appeared to be a main effect of internalizing behavior, $F(1, 71) = 4.82, p < 0.05$ and a main effect of familiarity with teacher, $F(1, 71) = 10.84, p < 0.05$, but no interaction between internalizing and familiarity with the teacher, $F(1, 71) = 0.00, ns$. This finding is represented in Figure 4.2.

Next, the influence of the supportive presence of the teacher on children’s emotional insecurity during the picture book session was examined by means of Pearson’s correlations. Neither for internalizing children, $r(38) = 0.17, ns$, nor for non-internalizing children,
r(37) = -0.16, ns, a significant association appeared between the supportive presence of the teacher and emotional insecurity.

**Figure 4.2 Mean Emotional Insecurity for Internalizing and Non-Internalizing Children, Working With the Regular Teacher Versus an Unfamiliar Teacher**

To examine the relation between emotional insecurity and involvement, Pearson’s correlations were computed for both the internalizing, r(38) = -0.61, p < 0.001 and the non-internalizing group, r(37) = -0.60, p < 0.001. As was expected, there are strong negative relations between insecurity and involvement for both experimental groups. However, the relation between emotional insecurity and involvement was expected to be stronger for internalizing children than for non-internalizing children, since internalizing children would in general feel more insecure. In contrast to the expectations, the correlations between insecurity and involvement appeared to be of similar strength for internalizing and non-internalizing children. To confirm this, an ANOVA was performed with involvement as dependent variable, experimental group (internalizing vs. non-internalizing) as independent variable and emotional insecurity as covariate. There was no main effect of internalizing group, F(1, 71) = 0.57, ns on involvement. There was a main effect of emotional insecurity on involvement, F(1, 71) = 40.58, p < 0.001. There was no interaction between emotional insecurity and internalizing group, F(1, 71) = 0.15, ns. Again, the effect of emotional security on involvement appeared to be of similar strength for internalizing children and non-internalizing children. In Figure 4.3, the relation between emotional insecurity and involvement is presented for internalizing and non-internalizing children. The figure shows that this relation is approximately the same for internalizing and non-internalizing children. If emotional insecurity is high, involvement is low. However, if emotional insecurity is low, there is much more variance within involvement. This is in accordance with the expectation that if children feel very
insecure they will be not or hardly involved, while in case of emotional security, children's involvement is influenced by many other factors.

**Figure 4.3 Emotional Insecurity Against Involvement for Internalizing and Non-Internalizing Children: Scatter Plot**

Finally, a relation between involvement and achievement was expected. For achievement the spontaneous recall on the picture book test on day 1 was the dependent variable. Pearson’s correlations were computed for both the internalizing and the non-internalizing group between involvement and spontaneous recall. In the internalizing group there appeared to be a clear relation between involvement and achievement, \( r(37) = 0.35, p < 0.05 \), whereas for the non-internalizing children no significant association between involvement and achievement, \( r(37) = 0.21, ns \), was found. The difference between these two correlations appeared to be not significant \( (z = 0.63, ns) \).

**Theoretical model.**

It was assumed that emotional security would be influenced by internal as well as external factors. In the current experiment internalizing behavior was considered an internal factor, whereas the familiarity and the supportive presence of the teacher were considered external factors. Emotional security, on its turn, was expected to be of influence on involvement, which was supposed to have an effect on achievement. To examine this presumed causality, hierarchic regression analyses were performed. Separate analyses were performed for internalizing and non-internalizing children. In the first step, familiarity with the teacher was entered. Familiarity with the teacher was not of significant influence on the score on the picture book test for internalizing, \( F(1, 35) = 0.06, ns, R^2 = 0.00 \), and non-internalizing children, \( F(1, 35) = 1.21, ns, R^2 = 0.03 \). Apparently, familiarity does not have a *direct* influence on achievement.
In the next step, familiarity with the teacher was removed from the model, and supportive presence of the teacher was entered. Supportive presence was not of influence on spontaneous recall for internalizing, $F(1, 35) = 0.00$, $ns$, $R^2 = 0.00$, and non-internalizing children, $F(1, 35) = 1.61$, $ns$, $R^2 = 0.04$. Supportive presence of the teacher does not have a direct influence on children's achievement.

Next, supportive presence was removed and emotional insecurity was entered. An interesting result was revealed concerning the influence of emotional insecurity on achievement. It appeared that for the internalizing group, emotional insecurity was relatively strongly related to children's performance on the test, $F(1, 35) = 9.63$, $p < 0.01$, $R^2 = 0.22$. However, in the non-internalizing group, no relation between emotional insecurity and performance was found, $F(1, 35) = 0.10$, $ns$, $R^2 = 0.00$.

Table 4.1 Summary of Hierarchical Regression Analyses: Predicting Spontaneous Recall in Internalizing Children ($N = 37$) from Teacher Familiarity, Teacher's Supportive Presence, Emotional Insecurity and Task Involvement

<table>
<thead>
<tr>
<th>Variable</th>
<th>$F$</th>
<th>df</th>
<th>$R^2$</th>
<th>$t$</th>
<th>df</th>
<th>$B$</th>
<th>$SE B$</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Familiarity</td>
<td>.06</td>
<td>1,35</td>
<td>.00</td>
<td>.24</td>
<td>35</td>
<td>-0.40</td>
<td>1.68</td>
<td>-0.04</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Presence</td>
<td>.00</td>
<td>1,35</td>
<td>.00</td>
<td>.06</td>
<td>35</td>
<td>-0.06</td>
<td>.95</td>
<td>-0.01</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emot. Insecurity</td>
<td>9.63**</td>
<td>1,35</td>
<td>.22</td>
<td>3.10**</td>
<td>35</td>
<td>-1.45</td>
<td>.47</td>
<td>-0.47</td>
</tr>
</tbody>
</table>

* $p < 0.05$; ** $p < 0.01$

In the next step, the child's involvement with the task was added. Based on the theoretical model it was expected that involvement would have a significant influence on achievement while the influence of emotional insecurity would be reduced, or even drop below the significance level. The results did not meet the expectations completely. For internalizing children, the model was still significant if involvement was added to the model, $F(2, 34) = 4.88$, $p < 0.05$, $R^2 = 0.22$. However, no additional variance was explained, and looking at the individual factors it appeared that whereas emotional insecurity was still significant, $t = 2.10$, $p < 0.05$, involvement did not show a significant association with achievement, $t = 0.56$, $ns$. Apparently, involvement does not explain a unique part of achievement in the internalizing group. For non-internalizing children a different pattern evolved. After having removed emotional insecurity from the equation, since it appeared to be not of significant influence, involvement was added. Involvement appeared to be not significantly related to achievement, $F(1, 35) = 1.67$, $ns$, $R^2 = 0.05$. The results of the regression analyses are summarized in Table 4.1 and Table 4.2.
Table 4.2 Summary of Hierarchical Regression Analyses: Predicting Spontaneous Recall in Non-Internalizing Children (N = 37) from Teacher Familiarity, Teacher’s Supportive Presence, Emotional Insecurity and Task Involvement

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>df</th>
<th>( R^2 )</th>
<th>t</th>
<th>df</th>
<th>B</th>
<th>SE B</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong> 1.21</td>
<td></td>
<td>1.35</td>
<td>.03</td>
<td>1.10</td>
<td>35</td>
<td>1.70</td>
<td>.54</td>
<td>.18</td>
</tr>
<tr>
<td>Familiarity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong> 1.61</td>
<td></td>
<td>1.35</td>
<td>.04</td>
<td>1.27</td>
<td>35</td>
<td>1.26</td>
<td>.21</td>
<td></td>
</tr>
<tr>
<td>Supportive Presence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3</strong> .10</td>
<td></td>
<td>1.35</td>
<td>.00</td>
<td>.31</td>
<td>35</td>
<td>.17</td>
<td>.54</td>
<td>.05</td>
</tr>
<tr>
<td>Emot. Insecurity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 4</strong> 1.67</td>
<td></td>
<td>1.35</td>
<td>.05</td>
<td>1.29</td>
<td>35</td>
<td>.61</td>
<td>.47</td>
<td>.21</td>
</tr>
<tr>
<td>Involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\*p < 0.05; \**p < 0.01

4.2.4 Discussion

From the results of study 1 it can be concluded that children with internalizing problems feel more insecure in an experimental small-group setting in school than non-internalizing children. In addition, both internalizing and non-internalizing children feel more insecure in a small group if they work with an unfamiliar teacher compared to their regular teacher. The results have not revealed that the impact of teacher unfamiliarity is stronger for internalizing children than for non-internalizing children. Contrary to the expectations, the findings suggest that the impact of teacher unfamiliarity on emotional security is similar for both groups. In the present study, however, the effect of only one encounter with the strange teacher was examined. It is possible that the ease with which children adapt to new situations differs and that the emotional security of internalizing children and non-internalizing children will diverge if children are confronted with this teacher more often. Koozen and Hoeksma (2002), for example, reported that after kindergarten entry children with internalizing problems continued to show emotional insecurity for a longer time than children without these problems.

Contrary to the expectations, in the present study the supportive presence of the teacher was not of influence on children’s emotional security. All teachers appeared to be rather supportive with little variation between teachers. The consistency in the variable supportive presence may be responsible for not finding a relation with emotional security. An explanation for the lack of variation in supportive presence is that the teacher read to three children at the same time. It is possible that because of this she was incapable of adjusting her support to the needs of each individual child and looked after the whole group on an averaged level of supportiveness instead.
For both the internalizing and the non-internalizing group, a strong relation was found between emotional security and involvement. The expectation that the relation between emotional security and involvement would be stronger for internalizing children could not be confirmed. Although internalizing children overall felt more insecure during the experimental situation than non-internalizing children, the results revealed that the variation in emotional insecurity was large in both groups. In both groups there were children who felt relatively insecure, and children who felt relatively secure. Apart from internal factors such as internalizing behavior, emotional security is assumed to be influenced for a large part by external, situational, factors. Consequently, it is possible that the experimental situation induced emotional insecurity in children, independent of the presence or absence of internalizing problems. As a result, both experimental groups contained insecure children. Considering that the relation between emotional security and involvement is strongest when emotional insecurity is high, it becomes understandable that the relation between emotional security and involvement is rather strong for both groups.

For internalizing children, the expected relation between involvement and achievement was found when using correlation analysis. In the non-internalizing group, no significant association between involvement and achievement was found, although it approached significance. A comparison of the correlations between involvement and achievement in the internalizing and non-internalizing group, showed no significant difference. It is possible that, in case of a larger sample, the relation between involvement and achievement would also be significant in the non-internalizing group. On the other hand, it is also possible that the correlations between involvement and achievement in the two groups would turn out significantly different when using larger samples. The tendency to a divergence in associations between involvement and achievement, as observed in the present study, could be brought about by the difference in emotional security between the two groups. The task in this study was relatively easy. It is possible that just a little involvement during picture book reading was enough to perform well on the test. Differences in involvement above this level may not have produced differences in achievement. It is likely that non-internalizing children in general were at least a little involved with the story, due to their relative emotional security. Some of the internalizing children, on the other hand, may have felt too insecure to manage to achieve the low level of involvement necessary to perform well on the test. According to this line of reasoning, the difference in involvement may have caused a difference in achievement in the internalizing group, but not in the non-internalizing group. As a result, involvement and achievement are significantly related for the internalizing, but not for the non-internalizing group.

Although in the correlation analysis an association between involvement and achievement was found for internalizing children, regression analysis drew a slightly different picture. It appeared that the relation between emotional insecurity and achievement was rather strong for internalizing children while involvement could not explain any additional variance. For non-internalizing children no relations between emotional insecurity and involvement on
the one hand, and achievement on the other, could be found. Both internalizing and non-
internalizing children spoke to the same amount during the test. Therefore, the relation
between emotional security and achievement in the internalizing group, and the lack of this
relation in the non-internalizing group can’t be explained by verbal inhibition of internalizing
children. These findings emphasize the importance of the emotional security construct,
especially for internalizing children. For these children, emotional security appears to be
directly related to, and a necessary precondition for academic performance.

4.3 Study II

In a correlational study the experiment from study I was repeated in a new sample to
further explore the effect of familiarity and supportive presence of the teacher on emotional
security and involvement. The design and procedures of study II were identical to study I,
with the exception that instead of a small group of children, one child worked with either a
familiar or an unfamiliar teacher on the picture book reading task from study I. It was
anticipated that the effects of unfamiliarity and supportive presence would be more evident
because in a one-to-one situation (1) the child can’t derive security from other children, and
(2) the teacher is able to adjust her support to the needs of the individual child instead of
having to deal with a group of children.

4.3.1 Hypotheses

The main goal of study II was to explore the effect of teacher familiarity and
supportive presence of the teacher on emotional security and involvement in a dyadic
situation. Again, internalizing and non-internalizing children were selected to participate in
the experiment. Half of the children worked on the picture book reading task with their own
regular teacher, the other half worked with an unfamiliar teacher. In addition the supportive
presence of the teacher was considered as a factor of influence on children’s feelings of
security.

The first expectation was that internalizing children would show more emotional
insecurity during the experimental task than non-internalizing children. Second, it was
expected that both internalizing and non-internalizing children would feel more insecure when
they were working with a strange teacher, as compared to their regular teacher. In addition, it
was expected that the impact of a strange teacher would be stronger for internalizing than for
non-internalizing children. Furthermore, it was expected that the supportive presence of the
teacher would have a positive influence on children’s emotional security, for both
internalizing and non-internalizing children. In addition, it was expected that feelings of
insecurity would decrease involvement with the task for both groups of children. This relation
was expected to be stronger for internalizing children than for non-internalizing children.

The final expectation was that involvement would be positively related to
achievement.
4.3.2 Method

Participants and Design.

The regular teachers of 6 participating kindergarten classes of 4 Dutch primary schools filled out a short questionnaire on internalizing and externalizing behavior for all children in their classes \((N = 98)\). Based on this questionnaire, in each class two children with high scores on internalizing behavior and average scores or below on externalizing behavior were selected \((N = 12)\) and matched with two children from the same class and same age that scored average or below on both internalizing and externalizing behavior \((N = 12)\). If possible, children were matched with a child of the same sex. The children (11 boys and 13 girls; \(M\) age = 67.0 months, \(SD = 7.9\) months) were assigned to four experimental conditions that involved an internalizing child, working on a task with a strange teacher (Condition 1; \(N = 6\)); a non-internalizing child, working with a strange teacher (Condition 2; \(N = 6\)); an internalizing child, working with the regular teacher (Condition 3; \(N = 6\)); and a non-internalizing child, working with the regular teacher (Condition 4; \(N = 6\)). The “strange teachers” were all students or graduates in educational studies or psychology. They were all experienced in working with young children.

Procedure.

On the first day, children read the same picture book as in study I together with a teacher. This was recorded on videotape for later rating. First, the internalizing child that was selected to work with a strange teacher was taken out of the class (Condition 1). The child read the picture book together with the strange teacher. Afterwards, the child returned to its class and the non-internalizing child, working with a strange teacher was taken out of the class to read the book (Condition 2). When this child was ready and had returned to the class, the first child (Condition 1) was again taken to the experimental room to be tested for his or her recall of the story. The same teacher that had read the book with the child asked him or her to tell her the story. This was recorded on audiotape for later rating. After the test, the non-internalizing child, working with the strange teacher was tested in the same manner (Condition 2). Next, respectively the internalizing child working with the regular teacher (Condition 3) and the non-internalizing child working with the regular teacher (Condition 4) read the book together with their teacher and were tested in the same manner as described above.

The second test day was meant to examine the retention of the knowledge of the story after one day. Children entered the experimental room individually and were tested in the same order as the day before. An experimenter, who was unfamiliar to the children, administered the tests. On one occasion, the tape-recorder didn’t work properly on the first experimental day. This has unfortunately led to the loss of the data of 4 children on spontaneous recall of that day.
In addition to these tests, a passive vocabulary test was administered to the children and the regular class teachers were asked to fill out a questionnaire about the teacher-child relationship for the children participating in the study. For six children the questionnaires were filled out incompletely or not returned.

Material.

All instruments used in this study are the same as in study I and were described in detail earlier. In this section the results of reliability analyses and manipulation checks are considered.

Spontaneous recall. Two independent raters coded spontaneous recall. The inter-rater reliability of spontaneous recall was high, \( r = 0.99 \). For further analyses, a mean was computed of the scores of both raters. The correlation of children’s spontaneous recall on the picture book test on the first day with the score on the retention test on the second day was moderate, \( r(20) = 0.48, p < 0.05 \). The mean score on spontaneous recall on the first day of testing (\( M = 9.88, SD = 4.91 \)) did not significantly differ from children’s score on the retention test (\( M = 10.84, SD = 5.09 \)), \( t(19) = 0.84, ns \). Apparently, after one day, children can still recall a story to the same degree as on the day the story was read.

Verbalization. To control for the earlier described effect that poor results of internalizing children may be caused by verbal inhibition, the degree of verbalization was determined for all children whose spontaneous recall of the story was recorded at day 1 \( (N = 20) \). It appeared that internalizing children \( (M = 105.50, SD = 53.20) \) did not significantly differ from non-internalizing children \( (M = 84.80, SD = 25.53) \) in the degree of verbalization, \( t(18) = 1.11, ns \).

Passive vocabulary. To control for differences in the development of children’s vocabulary, passive vocabulary was measured using the subtest “Word meaning” (Woordbetekenis) from the Revision Amsterdam Child Intelligence Test (RAKIT; Bleichrodt, Drenth, Zaal, & Resing, 1984). There was no difference between internalizing \( (M = 18.00, SD = 6.49) \) and non-internalizing \( (M = 16.00, SD = 7.29) \) children on passive vocabulary, \( t(22) = 0.71, ns \).

Observational scales. Two observers, who were unaware of the experimental conditions, watched the videotapes independent of each other after having been trained on the observational scales. Both observers watched all the tapes. The mean of the scores of these two observers were used for the data analyses. The inter-rater reliabilities for the scales Emotional Insecurity \( (r = 0.87) \), Involvement \( (r = 0.85) \) and Supportive presence of the teacher \( (r = 0.89) \) were all sufficient.

Teacher-child relationship. There was no difference in closeness, \( t(16) = 0.30, ns \), conflict, \( t(16) = 0.08, ns \), or dependency, \( t(16) = 0.52, ns \), of the existing teacher-child relationship between children working with their regular teacher and children working with an unfamiliar teacher. Children working with a regular teacher had close \( (M = 3.24, SD = 0.44) \), non-conflicitive \( (M = 1.21, SD = 0.28) \) and moderately dependent \( (M = 1.98, SD = 0.55) \).
relationships with their teachers. Children working with a strange teacher also had close ($M = 3.30$, $SD = 0.53$) non-conflictive ($M = 1.22$, $SD = 0.25$) and moderately dependent ($M = 2.09$, $SD = 0.40$) relationships with their regular teachers.

4.3.3 Results

The expectation that children with internalizing problems would feel more insecure during the experimental situation than non-internalizing children was examined by means of a t-test. Internalizing children ($M = 3.46$, $SD = 1.32$) indeed showed more emotional insecurity than non-internalizing children ($M = 2.50$, $SD = 0.77$), $t(22) = 2.17$, $p < 0.05$.

The second expectation was that children who read the picture book with an unfamiliar teacher would feel more insecure than children working with their own regular teacher. For both the internalizing and the non-internalizing group this was examined by means of t-tests. Internalizing children working with an unfamiliar teacher ($M = 3.33$, $SD = 1.21$) did not feel more insecure than internalizing children working with their regular teacher ($M = 3.38$, $SD = 1.53$), $t(10) = 0.31$, $ns$. In addition, non-internalizing children reading the book with an unfamiliar teacher ($M = 2.92$, $SD = 0.80$) did not feel significantly more insecure than non-internalizing children reading with their regular teacher ($M = 2.08$, $SD = 0.49$), $t(10) = 2.17$, $ns$.

An additional expectation was that the association between familiarity with the teacher and emotional insecurity would be stronger for internalizing children. To examine this, an ANOVA was performed with emotional insecurity as dependent variable and internalizing behavior and familiarity with teacher as independent variables. There appeared to be a main effect of internalizing behavior, $F(1, 20) = 4.70$, $p < 0.05$, but not of familiarity with the teacher, $F(1, 20) = 0.44$, $ns$. There also was no interaction between internalizing and familiarity with the teacher, $F(1, 20) = 1.50$, $ns$.

Next, the influence of the supportive presence of the teacher on children's emotional insecurity during the picture book session was examined by means of Pearson's correlations. There appeared to be a significant negative association between the supportive presence of the teacher and emotional insecurity for internalizing children, $r(12) = -0.77$, $p < 0.01$ but not for non-internalizing children, $r(12) = -0.38$, $ns$.

To examine the relation between emotional insecurity and involvement, Pearson's correlations were computed for both the internalizing, $r(12) = -0.83$, $p < 0.01$, and the non-internalizing group, $r(12) = -0.65$, $p < 0.05$. As was expected, there are strong negative relations between insecurity and involvement for both experimental groups. To examine whether the relation between emotional insecurity and involvement was stronger for internalizing children than for non-internalizing children an ANOVA was performed with involvement as dependent variable and internalizing behavior and emotional insecurity as independent variables. There appeared to be a main effect of emotional insecurity, $F(1, 20) = 20.66$, $p < 0.001$. There was no main effect of internalizing behavior, $F(1, 20) = 0.52$, $ns$. In addition, there was no interaction of emotional insecurity and internalizing behavior on
involvement, $F(1, 20) = 1.15, ns$. Internalizing behavior apparently does not significantly influence the strength of the relation between emotional insecurity and involvement.

Finally, a relation between involvement and achievement was expected. Pearson’s correlations were computed for both the internalizing and the non-internalizing group between involvement and spontaneous recall. There appeared to be no significant relation between involvement and achievement, neither for internalizing children, $r(10) = 0.48, ns$, nor for non-internalizing children, $r(10) = -0.18, ns$.

4.3.4 Discussion

From the results of this study, and in agreement with the former, it can be concluded that children with internalizing problems feel more insecure in an experimental setting in school than non-internalizing children. However, contrary to the results of study I, in the dyadic setting of study II there was no effect of familiarity of the teacher on emotional security. Instead, a relation between supportive presence of the teacher and emotional security for the internalizing group was revealed. In a dyadic situation internalizing children appeared to feel less insecure when the teacher showed more emotional support during the reading of the picture book. This relation between supportive presence and emotional security was not found in study I where the picture book reading task was performed in a small group. Presumably, working on a task with one child in a dyad better enables teachers to adjust their supportive presence to the needs of the individual child than working in a group setting. These findings indicate that in order to help internalizing children feel emotionally secure, it is important to provide them with individualized emotional support.

In addition, the combination of results with respect to teacher familiarity and supportive presence in study II suggests that in the dyadic setting strange teachers may have compensated their unfamiliarity with supportive presence. Consequently, the unfamiliarity of the teacher was no longer of significant influence on children’s emotional security.

As expected, strong relations were found between emotional insecurity and involvement. No significant difference in strength of the relation between emotional insecurity and involvement was found between children with and without internalizing problems. In addition, no relations could be revealed between involvement and achievement. The small group of subjects participating in this experiment may be the reason for not finding these expected relationships.

4.4 General Conclusions and Implications

The measurement of the construct emotional security in this Chapter has been restricted to an aspect that is observable by others, i.e. children’s perceptible security or well-being. As stated in the introduction, however, emotional security is multi-dimensional, including for example also covert feelings of security and cognitions about interpersonal relationships (Cummings & Davies, 1996). Viewed from that perspective, the measurement approach used in the present studies was limited. In future studies it is important to replicate
and complete the methods used in the present studies with other measures of emotional security.

According to the findings of the two studies described in this Chapter, young children in a small group situation feel most secure when they are working with their regular teacher. In a dyadic situation teacher familiarity seems to be less important, possibly because teachers are able to compensate for their unfamiliarity by being extra supportive. In a classroom a lot of children are present who differ in their feelings of security and their individual needs for emotional support. Teachers constantly have to compromise between adjusting their support to group needs and individual needs. Our findings suggest that it is very hard to meet individual needs in classrooms, even in small group settings. At the same time it appears that individual support is important, especially for children with internalizing problems. To make these children feel more secure in the classroom, it may be important to treat them with special care and give them individual attention and support whenever possible. Internalizing children will then be better able to cope with unfamiliarity of teachers. Additionally, our findings indicate that it may be best for all children to keep teacher changes in schools to a minimum.

In study I, a single confrontation with a strange teacher in a small group setting had a similar impact on the emotional security of internalizing and non-internalizing children. It is possible that the emotional security of internalizing and non-internalizing children will diverge if children are confronted with this teacher more often. In future research, it is recommended to use longitudinal designs, to be able to trace differences between internalizing and non-internalizing children in the trajectories of change in emotional security in comparable situations over time.

In study I, involvement and especially emotional security were found to be more important for the achievement of internalizing children than for non-internalizing children. In the studies described a relatively simple task was used, for which only little involvement was needed. Possibly, for some internalizing children the task situation caused so much emotional insecurity that they could not work up the minor involvement needed to perform well. This is an alarming finding. It suggests that internalizing children are in danger for failing even at relatively simple cognitive tasks.

The findings from these studies imply that children with internalizing problems have to be treated with special regard. However, these children often sit quietly in the classroom, are not disturbing the lessons and may therefore be easily unnoticed by their teachers. It is important to take notice of these children, to give them individualized support and to make them feel as secure as possible in school, not only for the sake of their well-being but also in order to promote their involvement with and successful performance on cognitive tasks.
References


