

Chapter 19

Affective Student–Teacher Relationships and Students’ Engagement: A Cross–Cultural Comparison of China and The Netherlands



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Abstract Ample evidence has been found for the association between affective, dyadic student–teacher relationships and students’ engagement with schoolwork in Western, individualistic countries. There are far fewer studies, however, examining this association in Eastern, collectivistic countries. As maintaining harmony in interpersonal relationships plays a crucial role in collectivistic countries, student–teacher relationships may even be more important in collectivistic countries than in individualistic countries. In the present study, we therefore investigated cross–cultural differences in the strength of associations between student–teacher relationship quality and students’ engagement based on data from the Netherlands (a Western country) and China (an Eastern country). The Dutch sample included 789 students (51.1% girls) and the Chinese sample included 588 students (52.9% girls) from grades 3 to 6 of elementary school. Students reported about the quality of their relationship with their teacher (closeness, conflict) and their behavioral and emotional engagement with schoolwork. Hierarchical linear modeling showed that the positive association between closeness and both behavioral and emotional engagement was stronger for the Chinese sample than for the Dutch sample. In contrast, the negative association between conflict and both behavioral and emotional engagement did not differ across countries. To conclude, closeness may be more relevant for Chinese students’ engagement than would be expected based on Western studies,

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whereas conflict seems to be equally harmful in both cultures. Therefore, developing relationship-focused interventions for Chinese teachers and students seems important, either by adapting Western programs or by developing new programs especially designed for Chinese schools.

Keywords Affective teacher–student relationships · Behavioral engagement · Emotional engagement · Cross–cultural comparison · Upper elementary students

1 Affective Student–Teacher Relationships and Students’ Engagement: Differences Between China and the Netherlands

Previous research has generated convincing evidence that the emotional bond between teachers and individual students (i.e., affective quality of dyadic student–teacher relationships) affects elementary students’ school adjustment, such as their engagement with schoolwork (e.g., Archambault et al., 2013; Hamre & Pianta, 2001; Hughes, 2011). Most of these studies, however, were conducted in Western, individualistic countries, whereas this topic remains relatively understudied in Eastern, collectivistic countries. Some evidence has been found that observed teacher–student interactions are associated with students’ school adjustment in Eastern, collectivistic countries as well (e.g., Hu et al., 2017, 2021; Hoang et al., 2018). However, these studies focused on interactions between teachers and groups of students (i.e., teacher style or classroom climate) and not on dyadic relationships, which are the focus of the present study.

As maintaining harmonious relationships with significant others plays a central role in collectivistic cultures (Triandis, 2018), the impact of student–teacher relationships on students’ engagement with schoolwork may even be larger in collectivistic cultures than in individualistic cultures. Still, there is a lack of studies comparing the strength of associations between dyadic student–teacher relationships and students’ engagement with schoolwork across different countries. The present study therefore used data from both the Netherlands (a Western, individualistic country) and China (an Eastern, collectivistic country) to examine the existence of potential cross–cultural differences in the strength of associations between student–teacher relationships and engagement.

2 Student–Teacher Relationships and Students’ Engagement with Schoolwork

Research focusing on the affective quality of dyadic student–teacher relationships is often based on attachment theory (Pianta, 1999; Verschueren & Koomen, 2012). According to this theory, student–teacher relationships high in closeness (i.e., the

degree of warmth, open communication, and trust in the relationship) help students feel emotionally secure. Emotional security, in turn, is considered a necessary precondition for students’ optimal exploration of the classroom environment and for being engaged with schoolwork. In contrast, student–teacher relationships characterized by high levels of conflict (i.e., the level of negativity, tension, and hostility in the relationship) will hamper students’ emotional security and, hence, limit their engagement with schoolwork (Verschueren & Koomen, 2012). Engagement refers to students’ participation in schoolwork (i.e., behavioral engagement, such as effort, persistence, and concentration) as well as their feelings and emotions toward schoolwork (i.e., emotional engagement, such as enjoyment, satisfaction, and boredom; Skinner et al., 2009).

Studies conducted in Western countries (i.e., countries in North America, Northwestern Europe, and Australia) found ample evidence for the hypothesized association between affective student–teacher relationships and students’ engagement with schoolwork. For example, Zee and Koomen (2019) showed that student–teacher closeness was associated with more behavioral and emotional engagement in upper elementary students over time. A meta-analytic study based on 189 studies also revealed that positive student–teacher relationships (e.g., closeness) were associated with higher engagement with schoolwork (including both behavioral and emotional aspects). In contrast, negative relationships (e.g., conflict) were associated with less engagement (Roorda et al., 2017). Moreover, the same associations were found in a subsample including longitudinal studies only, indicating that associations between student–teacher relationship quality and engagement hold over time (Roorda et al., 2017). However, most of these studies were conducted in the United States of America (USA; $k = 111$) or other Western countries ($k = 50$), such as Belgium, Germany, the Netherlands, Norway, Canada, and Australia, and cultural differences in the strength of associations were not investigated.

3 Cultural Differences in Associations Between Student–Teacher Relationships and Engagement

According to the developmental systems model (Pianta et al., 2003), cultural values play an important role in the development of student–teacher relationships and their impact on students’ school adjustment. With regard to cultural values, a distinction is often made between individualistic cultures and collectivistic cultures (Hofstede et al., 2010; Triandis, 2001, 2018; Triandis et al., 1988). In individualistic cultures, ties between individuals tend to be loose and people are usually relatively independent from their in-groups (e.g., family, tribe, nation). In such cultures, personal autonomy is especially valued and it can be considered shameful to depend too much on others. People are expected to fulfill their own needs and usually base their behaviors and decisions on their own goals and values. In contrast, in collectivistic cultures, interpersonal interdependence is high, with ties between individuals being

strong and people being inclined to depend much on their in-groups. In such cultures, group loyalty is highly valued and working as a group and supporting others is essential. Common goals are considered more important than desires of individuals and people tend to base their decisions and behaviors on norms and values of significant others (Hofstede et al., 2010; Triandis, 2001, 2018; Triandis et al., 1988). Furthermore, values as respect and obedience to authority figures (e.g., teachers) are important in collectivistic cultures and students are also inclined to admire their teachers more than in individualistic cultures (Li, 2010; Triandis, 2018). Due to the higher degree of interpersonal interdependency and the importance of harmonious relationships in collectivistic cultures, relationships with teachers may have a larger impact on students' engaged behaviors and emotions in Eastern, collectivistic countries than in Western, individualistic countries.

In line with this idea, Zhou et al. (2012) found that relatedness with the teacher was positively associated with students' behavioral engagement in China but not in the USA. Likewise, a meta-analysis based on 65 studies (including 12 Asian studies) revealed that the association between teacher support and students' negative academic emotions (i.e., indicator of emotional disengagement) was stronger for East-Asian students than for Western-European and American students (Lei et al., 2018). In contrast, the association between teacher support and positive academic emotions appeared to be stronger in Western-European and American samples than in East-Asian samples (Lei et al., 2018).

To solve this inconsistency in findings, more research on cross-cultural differences in associations between dyadic student-teacher relationships and students' engagement seems to be needed. Furthermore, Lei et al. (2018) and Zhou et al. (2012) did not examine the impact of negative relationship dimensions (e.g., conflict), whereas previous research suggests that negative student-teacher relationships are more influential for elementary students' engagement with schoolwork than positive relationship dimensions (see Roorda et al., 2011, for a meta-analysis).

From a cross-cultural perspective, negative relationship dimensions are also interesting to study, as there tends to be a larger power distance and more respect for authority in schools in collectivistic countries than in individualistic countries (Hofstede et al., 2010; Li, 2010). In schools with a large power distance, students usually treat teachers with respect and deference and it is not appreciated if students publicly contradict or criticize their teachers. In schools in individualistic countries, however, teachers usually treat their students more as equals and arguing and disagreeing with teachers is more commonly accepted (Hofstede et al., 2010). Due to the larger power distance in collectivistic cultures, students may be more sensitive to and more frightened by conflictual relationships with teachers. As such, high levels of student-teacher conflict may even be more harmful for students' engagement in Eastern, collectivistic countries than in Western, individualistic countries. Therefore, the present cross-cultural comparison not only included closeness as relationship dimension but also focused on student-teacher conflict.

4 The Present Study

In the present study, we investigated the extent to which there are cultural differences in the strength of associations between student–teacher closeness and conflict and students’ behavioral and emotional engagement with schoolwork. In doing so, we focused on a sample of third to sixth graders from China (an Eastern, collectivistic country) and the Netherlands (a Western, individualistic country). Apart from logistical reasons, China and the Netherlands are interesting to compare, because of their distinct differences on individualism (i.e., the extent of interdependence amongst members of a society) and power distance (i.e., the degree to which a society believes that inequalities amongst people are acceptable; Hofstede et al., 2010). More specifically, in the Netherlands, independence of individuals is highly valued (score of 80 on individualism on a scale from 1 to 120; Hofstede Insights, n.d.), whereas large power differences among people are less accepted (score of 38 on power distance). In contrast, the Chinese society generally values interdependence among people (score of 20 on individualism) and generally accepts power differences between people (score of 80 on power distance; Hofstede Insights, n.d.). These societal values are considered to influence daily interactions and relationships between teachers and students and their impact on students’ school adjustment (Chen et al., 2019; Hofstede et al., 2010; Pianta et al., 2003).

We hypothesized that closeness would be positively associated with students’ behavioral and emotional engagement, whereas conflict would be negatively associated with behavioral and emotional engagement (Roorda et al., 2017; Zee & Koomen, 2019). Based on the higher interpersonal interdependence, the larger power distance, and the larger respect for authority in collectivistic countries (Hofstede et al., 2010; Li, 2010; Triandis, 2001, 2018), we expected that these associations would be stronger in the Chinese sample than in the Dutch sample.

5 Methods

5.1 Participants

The Dutch sample consisted of 789 students (51.1% girls) from 35 classrooms from eight regular elementary schools. The Chinese sample included 588 students (52.9% girls) from 14 classrooms from three regular elementary schools. In both samples, students were in third to sixth grade. However, as formal education starts 1 year later in China than in most Western countries, students in the Chinese sample ($M_{\text{age}} = 11.49$ years, $SD = 1.29$; range = 9–14 years) were somewhat older than in the Dutch sample ($M_{\text{age}} = 9.99$ years, $SD = 1.24$; range = 7–13 years; $t(1192.48) = -21.50, p < .001$). Furthermore, the number of students per classrooms

was higher in China ($M_{\text{classroom size}} = 43$ students, $SD = 5.16$; range = 34–52 students) than in the Netherlands ($M_{\text{classroom size}} = 23$ students, $SD = 3.68$; range = 8–29 students; $t(1009.25) = -77.30$, $p < .001$). Therefore, we controlled for Age and Classroom Size in the analyses.

5.2 Procedure

Approval for the Dutch data collection was obtained from the Ethics Review Board of the University of (blinded for review). As China has no official Ethics Review Board, an independent senior researcher in China reviewed our research plan and confirmed that it complied with Chinese law. In both countries, students' parents received information letters and could object to their children's participation. Students filled out a questionnaire about their relationship with their teacher and their engagement with schoolwork. The total questionnaire took approximately 30 minutes to complete. Teachers were asked to leave the classroom while students completed the questionnaire to stimulate free and honest responses.

5.3 Instruments

5.3.1 Student–Teacher Relationships

Students reported about the affective quality of the relationship with their teacher on the Closeness and Conflict subscales of the Student Perception of Affective Relationship with Teacher Scale (SPARTS; Koomen & Jellesma, 2015). Example items for Closeness (eight items) are “I tell my teacher things that are important to me” and “My teacher understands me”. Example items for Conflict (ten items) are “I easily have quarrels with my teacher” and “My teacher treats me unfairly”. Items were answered on a 5–point Likert–type scale, ranging from 1 (*No, that is not true*) to 5 (*Yes, that is true*). Previous studies have supported the reliability and validity of both the Dutch and Chinese version of the SPARTS (Chen et al., 2019; Koomen & Jellesma, 2015; Jellesma et al., 2015). In the present study, Cronbach's alphas ranged from .72 to .84 (see Table 19.1).

5.3.2 Engagement with Schoolwork

Students rated their engagement with schoolwork on the Behavioral and Emotional Engagement subscales of the Engagement versus Disaffection with Learning Questionnaire (Skinner et al., 2008; Dutch translation and adaptation by Zee & Koomen, 2019). Behavioral Engagement consists of six items, such as “I try hard to do well in school” and “When I am in class, I just act like I'm working” (reverse coded). Emotional Engagement includes five items, such as “I enjoy learning new

Table 19.1 Means (M), standard deviations (SD), internal consistencies (α) and correlations between main variables per sample

| | Dutch sample | | | Chinese sample | | | 1. | 2. | 3. | 4. |
|--------------------------|------------------------|---------------|----------|------------------------|---------------|----------|--------|--------|--------|--------|
| | <i>M</i> (<i>SD</i>) | range | α | <i>M</i> (<i>SD</i>) | range | α | | | | |
| 1. Closeness | 3.50 (0.86) | 1.00– 5.00 | .84 | 4.04 (0.84) | 1.13– 5.00 | .84 | – | –.45** | .57** | .64** |
| 2. Conflict | 1.70 (0.67) | 1.00– 4.50 | .83 | 1.55 (0.52) | 1.00– 5.00 | .72 | –.56** | – | –.45** | –.52** |
| 3. Behavioral engagement | 4.24 (0.58) | 1.33– 5.00 | .76 | 4.26 (0.73) | 1.33– 5.00 | .81 | .37** | –.43** | – | .69** |
| 4. Emotional engagement | 3.79 (0.75) | 1.40– 5.00 | .62 | 4.40 (0.76) | 1.00– 5.00 | .80 | .49** | –.48** | .57** | – |

Note. * $p < .05$. ** $p < .01$. Descriptives and correlations for the Dutch sample are below the diagonal; descriptives and correlations for the Chinese sample are above the diagonal

things in class” and “When we work on something in class, I feel bored” (reverse coded). Students answered the items on a 5–point scale, varying from 1 (*No, that is not true*) to 5 (*Yes, that is true*). Items were translated in Chinese with a back translation procedure. The back translation procedure indicated that the formulation of two items needed to be slightly adapted to correspondent sufficiently with the original items, which are in English: “When I am in class, I listen very carefully” and “In class, I work as hard as I can”.

Support has been found for the reliability and validity of the Engagement Questionnaire in Western contexts (Skinner et al., 2008; Zee & Koomen, 2019). In the present study, we found evidence for partial scalar measurement invariance across the Dutch and Chinese samples ($\chi^2(96) = 298.877, p < .001$; RMSEA = .055; CFI = .915; SRMR = .069). Partial scalar invariance is considered to be sufficient to make meaningful cross–cultural comparisons (Little, 2013). In the present sample, internal consistencies varied from .62 to .81 (see Table 19.1).

5.4 Analyses

Data were analyzed in SPSS Statistics version 25. As students were nested within classrooms, we used hierarchical linear modeling with two levels (i.e., student level and classroom level) to analyze the data. We built separate models for Behavioral Engagement and Emotional Engagement. In both models, Closeness, Conflict, Sample (0 = Dutch sample, 1 = Chinese sample), and the interaction effects between Closeness and Sample and between Conflict and Sample were included as independent variables. The two interaction effects were included to investigate whether the strength of associations between student–teacher relationships and engagement differed across samples. Classroom Size, Age (in years), and students’ Gender (0 = boys, 1 = girls) were included as covariates in the analyses. To ease interpretation of results, all continuous variables were standardized at the student level (z -scores).

6 Results

Table 19.1 provides the descriptive statistics and correlations between the main study variables per sample. In both samples, the correlations between Closeness and both Behavioral and Emotional Engagement were significant and positive ($r_s = .37-.64, p_s < .05$), whereas the correlations between Conflict and the two Engagement dimensions were significant and negative ($r_s = -.43 - -.52, p_s < .05$).

In Table 19.2, the multilevel associations between the affective quality of student–teacher relationships and students’ engagement can be found. Closeness was positively associated with Behavioral Engagement ($\beta = .18, p < .001$) and Emotional Engagement ($\beta = .33, p < .001$). Furthermore, significant interaction effects between Closeness and Sample were found for both Engagement dimensions ($\beta = .36, p < .001$ and $\beta = .17, p = .001$, respectively). Figure 19.1a shows that the association between Closeness and Behavioral Engagement was stronger in the Chinese sample

Table 19.2 Associations between student–teacher relationships and students’ engagement

| | Behavioral engagement | Emotional engagement |
|---------------------------------|-----------------------|----------------------|
| | β (SE) | β (SE) |
| Classroom size | .07 (.08) | .05 (.08) |
| Gender (0 = boy; 1 = girl) | .15 (.05)** | .05 (.04) |
| Age | -.01 (.03) | .06 (.03) |
| Closeness | .18 (.04)** | .33 (.03)** |
| Conflict | -.27 (.03)** | -.24 (.03)** |
| Sample (0 = Dutch; 1 = Chinese) | -.40 (.17)* | .28 (.16) |
| Closeness*sample | .36 (.06)** | .17 (.05)** |
| Conflict*sample | -.06 (.06) | -.09 (.05) |
| <i>Variance</i> | | |
| Students | .66 | .50 |
| Classrooms | .03 | .03 |

Notes. Standardized regression coefficients are reported. * $p < .05$. ** $p < .01$

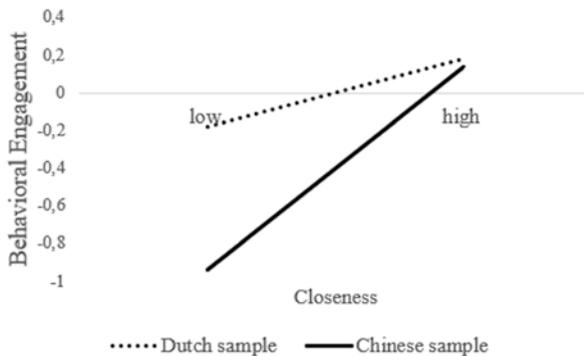


Fig. 19.1a Interaction effect of closeness and sample on behavioral engagement

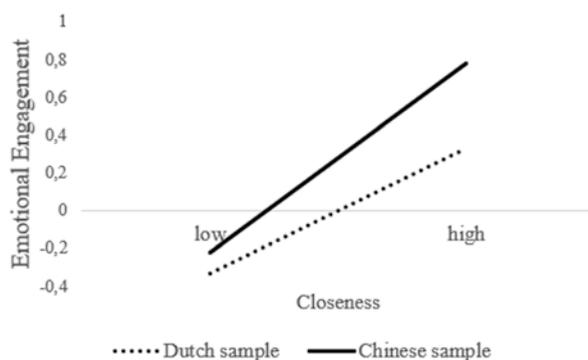


Fig. 19.1b Interaction effect of closeness and sample on emotional engagement

than in the Dutch sample. Figure 19.1b reveals that the association between Closeness and Emotional Engagement was also stronger in the Chinese sample. Conflict was negatively associated with both Behavioral Engagement ($\beta = -.27$, $p < .001$) and Emotional Engagement ($\beta = -.24$, $p < .001$). The interaction effects between Conflict and Sample were not significant for both Engagement dimensions ($\beta = -.06$, $p = .318$ and $\beta = -.09$, $p = .075$, respectively), indicating that the associations between Conflict and both Behavioral and Emotional Engagement did not differ across samples.

7 Discussion and Conclusion

In the present study, we compared students from China (an Eastern, collectivistic country) and the Netherlands (a Western, individualistic country). Specifically, we examined the extent to which associations between the affective quality of dyadic student–teacher relationships and students’ engagement differed between the two countries.

7.1 Cross–Cultural Differences in Associations

As expected (Hofstede et al., 2010; Triandis, 2001, 2018; Zhou et al., 2012), associations between student–teacher closeness and students’ engagement were stronger in the Chinese sample than in the Dutch sample. This cultural difference in strength of associations was found for both students’ engaged behaviors (cf., Zhou et al., 2012) as well as their engaged emotions (cf., Lei et al., 2018, for negative academic emotions), providing relatively strong evidence for this finding. As such, our findings support the idea that the degree of warmth, trust, and open

communication in students' relationships with their teachers is more influential for the behavioral and emotional engagement of Chinese students, most likely, because of the higher levels of interpersonal interdependency in the Chinese society compared to Dutch society (Hofstede et al., 2010; Triandis, 2001, 2018).

In contrast, associations between student–teacher conflict and students' engagement were just as strong in the Chinese sample as in the Dutch sample. Again, this was true for both the degree of effort, persistence, and concentration students put into their schoolwork (behavioral engagement) and for the feelings and emotions they experienced while working on their schoolwork (emotional engagement). Despite the potentially larger power distance and more respect for authority in Chinese schools and the broader society (Hofstede et al., 2010; Hofstede Insights, n.d.; Li, 2010), conflict did not appear to be more influential for students' engagement than in Dutch schools with a smaller power distance and less respect for authority. A possible explanation could be that high levels of negativity, tension, and hostility in relationships with teachers is harmful in all countries regardless of the specific cultural values in schools and the broader society (cf., Roorda et al., 2011; Ryan & Deci, 2017). Supporting this idea, studies conducted in Western countries usually find that conflict is more strongly associated with multiple aspects of elementary students' school adjustment (e.g., engagement, achievement, externalizing behavior; Hamre & Pianta, 2001; Lei et al., 2016; Roorda et al., 2011) than closeness. Hence, it might be that the negative impact of student–teacher conflict is more universal, whereas the impact of student–teacher closeness depends more on the cultural values and opinions existent in the specific school context and the society as a whole. More cross-cultural research, including other countries as well, is needed to further investigate this hypothesis.

7.2 *Limitations*

Some limitations need to be considered when interpreting the findings of the present study. First, we used a cross-sectional design, which does not permit statements about causality of influences. Our decision to view the student–teacher relationship as independent variable was based on both leading theories and existing research (Roorda et al., 2017; Verschueren & Koomen, 2012). Still, some studies suggest that students' engagement with schoolwork may impact the relationships they develop with their teachers as well (e.g., Zee et al., 2020). Cross-cultural studies with a longitudinal design are needed to examine the direction of influences and whether these differ across countries.

Second, students reported about both student–teacher relationship quality and their engagement with schoolwork. As most studies in elementary school are based on teachers' relationship perceptions (Roorda et al., 2011) and students tend to have different relationship perceptions than teachers (Hughes, 2011; Koomen & Jellesma, 2015), our focus on students' relationship perceptions can be considered as a strong point. Still, associations might be overestimated due to same-informant bias

(Roorda et al., 2011). Cross-cultural studies including both teacher-reports and student-reports about relationship quality and students’ engagement would therefore be helpful.

Third, our study focused on upper elementary students and only included students from China and the Netherlands. More cross-cultural research, including younger and older students and students (and teachers) from other countries is needed to find out whether our results can be generalized to different school grades and countries.

7.3 Implications for Research and School Practice

Despite these limitations, our study has several implications for future research. First, our study is a further confirmation of the idea that associations between student-teacher relationships and students’ school adjustment differ across cultures (cf., Lei et al., 2018; Zhou et al., 2012). Other cross-cultural studies focusing on dyadic student-teacher relationships also found different results for Eastern, collectivistic samples compared to Western, individualistic samples. For instance, students and teachers from Eastern, collectivistic countries appear to experience more closeness and less conflict in their mutual relationships than their Western counterparts (e.g., Beyazkurk & Kesner, 2005; Chen et al., 2019; Jia et al., 2009; Yang et al., 2013). Taken together, these studies suggest that findings from Western, individualistic contexts cannot simply be generalized to Eastern, collectivistic contexts. More research on student-teacher relationships in Eastern, collectivistic countries as well as cross-cultural comparison studies are therefore needed.

Second, previous studies found evidence for cross-cultural differences in associations between positive relationship dimensions and students’ engagement (Lei et al., 2018; Zhou et al., 2012) but did not look into negative relationship dimensions (e.g., conflict). Our present findings, however, seem to imply that there are cultural differences in the importance of positive dimensions (closeness) for students’ engagement but that the importance of conflict might be comparable across cultures. For future cross-cultural studies, it therefore seems to be important to include negative relationship dimensions, such as student-teacher conflict, as well.

The present study also has some implications for teachers and school practitioners. First, conflict appeared to be associated with both students’ behavioral and emotional engagement and these associations were just as strong in China as in the Netherlands. For both countries, it thus seems to be equally important to make teachers and other school practitioners aware of the negative impact that conflict can have on their students’ engagement with schoolwork and, hence, on their academic achievement (Roorda et al., 2017). To prevent these negative influences, teachers would profit from professional help to improve highly conflictual relationships with their students. For the Dutch context, a short teacher-based coaching intervention is available, called Teacher Student Interaction Coaching (LLInC; Bosman et al., 2021; Spilt et al., 2012). This intervention has been found effective in diminishing

conflict and increasing closeness between Dutch teachers and students (Bosman et al., 2021; Spilt et al., 2012). More research is needed, however, to investigate whether LLInC and other Western interventions (see Kincade et al., 2020, for a meta-analysis), will also be effective in Eastern, collectivistic countries. Cultural differences in prevailing expectations and norms for teacher and student behaviors (Hofstede et al., 2010) and student–teacher relationship quality (Beyazkurk & Kesner, 2005; Chen et al., 2019; Jia et al., 2009; Yang et al., 2013) suggest that Western interventions may not be automatically applicable in Eastern school contexts.

Second, associations between student–teacher closeness and students’ engagement appeared to be stronger in China than in the Netherlands. For Chinese teachers, it therefore seems to be even more important to invest in developing close and warm relationships with students than for their Dutch counterparts. If students and teachers do not succeed in developing warm, close relationships with each other, intervention programs might help. As far as we know, intervention programs focusing on increasing closeness in dyadic student–teacher relationships do not yet exist for the Chinese school context. Therefore, existing, Western programs might be adapted for the Chinese context (Bosman et al., 2021; Kincade et al., 2020) or new interventions might be developed especially designed for Chinese schools. For Dutch teachers, this finding may also have implications. More specifically, it might be that student–teacher closeness is also more important for the engagement of students with a Chinese background in Dutch schools and, hence, investing in warm, close relationships may also be more important for these students. More research is needed, however, to find out whether our findings generalize to Chinese students in Western school contexts as well. In addition, future cross-cultural studies, including other countries and using longitudinal designs, could provide more insight in cultural differences in the associations between the affective quality of dyadic student–teacher relationships and students’ engagement with schoolwork.

References

- Archambault, I., Pagani, L. S., & Fitzpatrick, C. (2013). Transactional associations between classroom engagement and relations with teachers from first through fourth grade. *Learning and Instruction, 23*, 1–9. <https://doi.org/10.1016/j.learninstruc.2012.09.003>
- Beyazkurk, D., & Kesner, J. E. (2005). Teacher-child relationship in Turkish and United States school: A cross-cultural study. *International Education Journal, 6*(5), 574–554. <http://iej.cjb.net>
- Bosman, R. J., Zee, M., de Jong, P. F., & Koomen, H. M. Y. (2021). Using relationship-focused reflection to improve teacher-child relationships and teachers’ student-specific self-efficacy. *Journal of School Psychology, 87*, 28–47. <https://doi.org/10.1016/j.jsp.2021.06.001>
- Chen, M., Zee, M., Koomen, H. M. Y., & Roorda, D. L. (2019). Understanding cross-cultural differences in affective teacher–student relationships: A comparison between Dutch and Chinese primary school teachers and students. *Journal of School Psychology, 76*, 89–106. <https://doi.org/10.1016/j.jsp.2019.07.011>
- Hamre, B. K., & Pianta, R. C. (2001). Early teacher–child relationships and the trajectory of children’s school outcomes through eighth grade. *Child Development, 72*(2), 625–638. <https://doi.org/10.1111/1467-8624.00301>

- Hoang, N., Holopainen, L., & Siekkinen, M. (2018). Quality of teacher-child interactions and its relations to children’s classroom engagement and disaffection in Vietnamese kindergartners. *International Journal of Early Years Education*, 26(4), 387–402. <https://doi.org/10.1080/009669760.2018.1478281>
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (Rev. 3rd ed.). McGraw–Hill.
- Hofstede Insights. (n.d.). Country Comparison. <https://hofstede-insights.com/country-comparison/>
- Hu, B. Y., Teo, T., Nie, Y., & Wu, Z. (2017). Classroom quality and Chinese preschool children’s approaches to learning. *Learning and Individual Differences*, 54, 51–59. <https://doi.org/10.1016/j.lindif.2017.01.007>
- Hu, B. Y., Wu, Z., Winsler, A., Wu, Y., & Fan, X. (2021). Teacher-child interaction and preschoolers’ learning behavior in China: A piecewise growth model. *Early Education and Development*, 32(5), 677–694. <https://doi.org/10.1080/10409289.2020.1798719>
- Hughes, J. N. (2011). Longitudinal effects of teacher and student perceptions of teacher–student relationship qualities on academic adjustment. *The Elementary School Journal*, 112(1), 38–60. <https://doi.org/10.1086/660686>
- Jellesma, F. C., Zee, M., & Koomen, H. M. Y. (2015). Children’s perceptions of the relationship with the teacher: Associations with appraisals and internalizing problems in middle childhood. *Journal of Applied Developmental Psychology*, 36, 30–38. <https://doi.org/10.1016/j.appdev.2014.09.002>
- Jia, Y., Ling, G., Chen, X., Ke, X., Way, N., Hughes, D., & Lu, Z. (2009). The influence of student perceptions of school climate on socioemotional and academic adjustment: A comparison of Chinese and American adolescents. *Child Development*, 80(5), 1514–1530. <https://doi.org/10.1111/j.1467-8624.2009.01348.x>
- Kincade, L., Cook, C., & Goerd, A. (2020). Meta-analysis and common practice elements of universal approaches to improving student-teacher relationships. *Review of Educational Research*, 90(5), 710–748. <https://doi.org/10.3102/0034654320946836>
- Koomen, H. M. Y., & Jellesma, F. C. (2015). Can closeness, conflict, and dependency be used to characterize students’ perceptions of the affective relationship with their teacher? Testing a new child measure in middle childhood. *British Journal of Educational Psychology*, 85(4), 479–497. <https://doi.org/10.1111/bjep.12094>
- Lei, H., Cui, Y., & Chiu, M. M. (2016). Affective teacher-student relationships and students’ externalizing behavior problems: A meta-analysis. *Frontiers in Psychology*, 7, 1–12. <https://doi.org/10.3389/fpsyg.2016.01311>
- Lei, H., Cui, Y., & Chiu, M. M. (2018). The relationship between teacher support and students’ academic emotions: A meta-analysis. *Frontiers in Psychology*, 8, 1–12. <https://doi.org/10.3389/fpsyg.2017.02288>
- Li, J. (2010). Learning to self-perfect: Chinese beliefs about learning. In C. Chan & N. Rao (Eds.), *Revisiting the Chinese learner. CERC studies in comparative education* (Vol. 25, pp. 35–69). https://doi.org/10.1007/978-90-481-3840-1_2
- Little, T. D. (2013). *Longitudinal structural equation modeling*. Guilford Press.
- Pianta, R. C. (1999). *Enhancing relationships between children and teachers*. American Psychological Association.
- Pianta, R. C., Hamre, B., & Stuhlman, M. (2003). Relationships between teachers and children. In W. M. Reynolds, G. E. Miller, & I. B. Weiner (Eds.), *Handbook of psychology: Educational psychology* (Vol. 7, pp. 199–234). John Wiley & Sons.
- Roorda, D. L., Jak, S., Zee, M., Oort, F. J., & Koomen, H. M. Y. (2017). Affective teacher–student relationships and students’ engagement and achievement: A meta-analytic update and test of the mediating role of engagement. *School Psychology Review*, 46(3), 1–23. <https://doi.org/10.17105/SPR-2017-0035.V46-3>
- Roorda, D. L., Koomen, H. M. Y., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher–student relationships on students’ school engagement and achievement: A meta-analytic approach. *Review of Educational Research*, 81(4), 493–529. <https://doi.org/10.3102/0034654311421793>

- Ryan, R. M., & Deci, E. L. (2017). Pervasive social influences part I: Cultural contexts. In R. M. Ryan & E. L. Deci (Eds.), *Self-determination theory: Basic psychological needs in motivation, development, and wellness* (pp. 561–590). The Guilford Press.
- Skinner, E., Furrer, C., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic? *Journal of Educational Psychology, 100*(4), 765–781. <https://doi.org/10.1037/a0012840>
- Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement, 69*(3), 493–525. <https://doi.org/10.1177/0013164408323233>
- Spilt, J. L., Koomen, H. M. Y., Thijs, J. T., & van der Leij, A. (2012). Supporting teachers' relationship with disruptive children: The potential of relationship focused intervention. *Attachment & Human Development, 14*(3), 305–318. <https://doi.org/10.1080/14616734.2012.672286>
- Triandis, H. C. (2001). Individualism–collectivism and personality. *Journal of Personality, 69*(6), 907–924. <https://doi.org/10.1111/1467-6494.696169>
- Triandis, H. C. (2018). *Individualism and collectivism*. Routledge. <https://doi.org/10.4324/9780429499845>
- Triandis, H. C., Bontempo, R., Villareal, M. J., & Asai, M. (1988). Individualism and collectivism: Cross–Cultural perspectives on self–group relationships. *Journal of Personality and Social Psychology, 54*(2), 323–338. <https://doi.org/10.1037/0022-3514.54.2.323>
- Verschueren, K., & Koomen, H. M. Y. (2012). Teacher–Child relationships from an attachment perspective. *Attachment & Human Development, 14*(3), 205–211. <https://doi.org/10.1080/14616734.2012.672260>
- Yang, C., Bear, G. G., Chen, F. F., Zhang, W., Blank, J. C., & Huang, X. (2013). Students' perceptions of school climate in the U.S. and China. *School Psychology Quarterly, 28*(1), 7–24. <https://doi.org/10.1037/spq0000002>
- Zee, M., & Koomen, H. M. Y. (2019). Engaging children in the upper elementary grades: Unique contributions of teacher self–efficacy, autonomy support, and student–teacher relationships. *Journal of Research in Childhood Education, 34*(4), 477–495. <https://doi.org/10.1080/02568543.2019.1701589>
- Zee, M., Rudasill, K. M., & Bosman, R. J. (2020). A cross-lagged study of students' motivation, academic achievement, and relationships with teachers from kindergarten to 6th grade. *Journal of Educational Psychology, 113*, 1208–1226. Advance online publication. doi:<https://doi.org/10.1037/edu0000574>.
- Zhou, N., Lam, S.-F., & Chan, K. C. (2012). The Chinese classroom paradox: A cross–cultural comparison of teacher controlling behaviors. *Journal of Educational Psychology, 104*(4), 1162–1174. <https://doi.org/10.1037/a0027609>

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