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Quality of teacher-child interactions and its relations to children's classroom engagement and disaffection in Vietnamese kindergartens

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Quality of Teacher-Child Interactions and its Relations to Children’s Classroom Engagement and Disaffection in Vietnamese Kindergartens

Abstract

This study investigated the quality of teacher-child interaction and its effects on children’s classroom engagement and disaffection in Vietnamese kindergartens. The quality of teacher-child interaction was measured using the Classroom Assessment Scoring System. Children’s classroom engagement and disaffection were assessed by Engagement versus Disaffection in Learning. There were 1,474 kindergarten children and 60 teachers from 12 kindergartens in three cities in Vietnam participating in the study. The results indicated that classrooms in Vietnam kindergartens had a moderate quality of teacher-child interaction. Compared to the results from other countries published previously, teacher sensitivity and regard for student perspectives of Vietnamese samples were lower than those of Finland, Germany, the United States, and China. Productivity and the instructional learning format in Vietnamese kindergarten classrooms were higher than those of all the other countries except Finland. The results of fixed-effects and random-effects modelling suggested that children in better organized classrooms were more engaged in learning. Emotional support had a negative effect on children’s classroom engagement. Children’s classroom disaffection was not significantly affected by the quality of the teacher-child interaction.

Keywords: classroom engagement and disaffection, kindergarten, the Classroom Assessment Scoring System (CLASS), quality of teacher-child interaction
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Introduction

Teacher-child interaction is a key factor in classroom quality and contributes to children’s social development and competence in school (Hamre and Pianta 2007; Siekkinen et al. 2013). The use of observation to study the quality of teacher-child interaction has increased recently. One commonly used observation instrument to assess teacher-child interaction in recent research is the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, and Hamre 2008). Several studies have used CLASS in America (LoCasale–Crouch et al. 2008; Pianta, La Paro, and Hamre 2008), Europe (Cadima, Leal, and Burchinal 2010; Pakarinen et al. 2010; Suchodoletz et al. 2014), and recently, Asia (Hu et al. 2016). Notably, research on teacher-child interaction quality using the CLASS has not been conducted in Vietnamese context.

Vietnam has a young population, with more than eight million children under five years of age (General Statistics Office of Vietnam 2016). In the last few years, Vietnam has put great effort into improving their education system. Many projects with budgets of hundreds of millions U.S. dollars were/are implemented, for example, the Vietnam School Readiness Promotion Project (SRPP) (World Bank 2017) for raising school readiness for five-year-old children and the Renovation of General Education Project (World Bank 2015) for increasing student learning outcomes through revising the curriculum and improving the effectiveness of teaching/instruction. In the context, a study of the quality of teacher-child interaction in the classroom is essential. The study is an attempt to bring an international application to measure kindergarten classroom quality in Vietnam. At the same time, the broader aim is to provide more information for teacher evaluation, teacher training and teaching practice intervention. Different educational organization settings (e.g. Vietnamese kindergarten classes have much bigger class-size compared to many countries) and culture, may also give new aspect to teacher-child interaction and children’s engagement and disaffection in the classrooms.
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The quality of teacher-child interaction in the classroom

Teacher-child interaction investigating in the present study was conceptualized by the theoretical framework “Teaching through Interaction” of Hamre et al (2013) which developed based on the developmental theory. According to the development theory, the primary mechanism of children’s learning is learning through interactions with teachers in the classroom (Hamre and Pianta 2007; Pianta, La Paro, and Hamre 2008). Quality interactions between teachers and children in early childhood classrooms include well-managed teaching practices, social and emotional support, and the use of a variety of material and instructional methods. These interactions occur during teaching and learning periods through the communications between teachers and children and among children. The framework consists of three domains: emotional support, classroom organization, and instructional support.

Emotional support describes whether teachers and students enjoy a warm and supportive relationship or abide a controlling and disrespectful relationship. Theoretical foundations of emotional support lie in attachment theory and self-determination theory (Hamre et al. 2007). Attachment theory postulates that when children have emotionally supportive and secure relationships with their caregivers, children become more self-reliant (Bowlby 1982). Self-determination theory posits that children are more likely to be engaged and motivated to learn when their three innate psychological needs (relatedness, competence, and autonomy) are met (Skinner and Belmont 1993). Curby, Brock, and Hamre (2013) and Hamre and Pianta (2005) found that teachers’ emotional support (measured with CLASS) promotes children’s classroom engagement, achievement, and social skills. Teachers who support students emotionally provide comfort and assistance, use respectful language, show physical and verbal affection, and have positive expectations of students.

Classroom organization represents the management of time and students’ behaviours, teaching formats, preparation and productivity (PD) of the teaching period (Pianta, La Paro,
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and Hamre 2008). Classroom organisation has theoretical foundations in children’s development of self-regulatory skills (Hamre et al. 2007), which in turn are dependent on the external regulations provided by teachers (Rimm-Kaufmann et al. 2009). Teachers who have good classroom organisation skills can utilise the maximum amount of teaching time to provide many activities for students and effectively use the facilities and a variety of interesting materials. Hamre et al. (2014) using the CLASS to observe teacher-child interaction in early childhood classrooms, found that higher classroom organisation was associated with children’s higher academic achievement and less misbehaviours.

Instructional support focuses on children’s conceptual and language development. Teachers who provide a high level of instructional support (6 or 7 points of a 7-point scale; Pianta, La Paro, and Hamre 2008) encourage students to be creative and promote their ideas. The theoretical foundation for instructional support roots primarily from research on children’s cognitive and language development (Hamre et al. 2007). Teachers’ instructional support provides a strong basis for the development of children’s cognitive skills and academic outcomes (Downer et al. 2010; Hamre et al. 2007). Previous studies have shown that teachers’ instructional support also developed children’s language abilities and cognition (Pianta et al. 2002).

Hamre et al. (2013) used CLASS to measure teacher-child interaction in preschool and elementary classrooms. The results showed that positive climate (PC) was higher than negative climate (NC) in the U.S. kindergartens classrooms. Similarly, Leyva et al. (2015) reported PC in Chilean kindergartens classroom was higher than NC, also using CLASS as the measurement. The levels of emotional support and classroom organization of those studies ranged from middle to high, while instructional support was lower.

Children in Finnish kindergarten also enjoyed positive classroom climate; among the three domains of CLASS, classroom organisation scored highest and instructional support
Quality of Teacher-Child Interactions in Vietnamese Kindergartens scored lowest (Pakarinen et al. 2010). Consistent with the findings in Finland, the levels of emotional support and classroom organisation were also in the middle ranges in German and Portuguese classrooms (Cadima, Leal, and Burchinal 2010; Suchodoletz et al. 2014). In Chinese kindergartens, teachers provided more emotional support than classroom organisation and instructional support; similar to results from other countries, instructional support got lowest scores compared to scores of other domains (Hu et al. 2016).

Effects of teacher-child interaction quality on children’s classroom engagement and disaffection

Children’s classroom engagement refers to the degree of attention, interest, and enthusiasm that children show in the classroom. When children are demonstrating engagement in lessons or activities, and they listen carefully when teachers explain new knowledge (Connell and Wellborn 1994; Skinner and Belmont 1993). Disaffection is the opposite of engagement; when children are acting in a disaffected manner, they do not pay attention to what teachers teach (Miceli and Castelfranchi 2000; Skinner, Kindermann, and Furrer 2009).

From the motivational conceptualisations, classroom engagement has two dimensions. Behavioural engagement refers to the involvement and participation of children in academic activities in the classroom (Fredricks, Blumenfeld, and Paris 2004). Children with behavioural engagement participate in learning actively, and they listen to teachers carefully. Emotional engagement refers to the feelings or affective reactions of children, such as boredom, happiness, joy, interest, anxiety, or worry (Connell and Wellborn 1994; Skinner and Belmont 1993). Children who are emotionally engaged (measured by teacher rating report, e.g: “In my class, this child seems interested”) and proactively involved in learning are curious to know more about the subject being taught, and they do their work enthusiastically (Skinner, Kindermann, and Furrer 2009).
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Conceptually, children’s classroom disaffection also has behavioural and emotional dimensions. Behavioural disaffection refers to passivity, inattention, and withdrawal. When children are acting in a disaffected manner, they are passive, distracted, and give up easily when they are confronted with challenges in their studies. Emotional disaffection refers to disinterest, frustration, and anxiety. Children who are emotionally disaffected are frustrated, sad, worried, and bored (Finn, Pannozzo, and Voelkl 1995).

Previous studies have shown that teacher-child interaction and children’s engagement and disaffection are related. Ponitz et al. (2009) found that higher teacher-child interaction quality in terms of emotional support, classroom organization, and instructional support predicted higher children’s behavioural engagement. Skinner and Belmont (1993) reported that there were two-way effects between the teachers’ behaviours and children’s engagement. First, teachers’ behaviours influenced children’s engagement in both behavioural and emotional aspects. When teachers provided clear expectations and frequent feedback, children were more likely to be in compliance and put more effort into learning. Second, children’s engagement affects teacher-child interaction. Children who had higher behavioural engagement received more instructional support from teachers.

Previous studies have also indicated that students showed less disaffected behaviours if they perceived emotional support from teachers (Birch and Ladd 1997; Reyes et al. 2012). On the other hand, children who experienced conflictual relationships with teachers or children who behaved aggressively or antisocially were likely to show lower classroom engagement and achievement (Buhs, Ladd, and Herald 2006; Crick et al. 2006). Siekkinen et al. (2013) indicated that instructional support was linked to children’s disruptiveness and disaffection in the classroom.
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**Kindergarten in Vietnam**

The Vietnamese education system has 12 years of basic education, which is divided into four levels: preschool and kindergarten (0–6 years old; preschool: 0–3 years old, kindergarten: 4–6 years old), primary school (6–11 years old, grades 1–5), secondary school (11–15 years old, grades 6–9), and high school (15–18 years old, grades 10–12). The two-semester school year starts in September and ends in May.

Although preschool and kindergarten in Vietnam are not compulsory, and parents have to pay a tuition fee if they want to send their children, according to the General Statistics Office of Vietnam (2016), there were nearly four million Vietnamese children attending kindergarten and the enrolment rate of 5 year-old children of the school year 2016-2017 was 98.85% (World Bank, 2017).

Kindergarten class size varies, in some public or less-expensive private kindergartens, there can be 40–60 children in one class and in some more expensive, private kindergartens, class size can be less than five children per class. Children may have full- or half-day care services. For full-day service, children start the school day at 7 a.m. and end at 4 or 5 p.m. The teacher-child ratio varies from school to school; normally, there are two teachers for a class with 30–50 children or one to two teacher(s) for a class with fewer than 20 children. Kindergarten teachers in Vietnam are required to have at least a two-year college diploma specializing in kindergarten education. Teacher assistants in kindergarten must have at least a six-month certificate.

Education in Vietnam, including preschools and kindergartens are top down determined, teachers have to follow and strictly implement the guidelines provided by the ministry of education and training. The curricula aim to develop children’s mental, physical, social, emotional, and cognitive development as well as prepare them for school. Children from ages 4–6 are taught basic writing, reading, the alphabet, and mathematics.
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**Aims and hypotheses**

The first aim of this study was to examine the quality of teacher-child interaction in Vietnamese kindergartens. Based on previous studies of teacher-child interaction quality using CLASS in different countries (Hamre et al. 2013; Hu et al. 2016; Pakarinen et al. 2010; Suchodoletz et al. 2014), we expect that teacher-child interaction quality in Vietnamese kindergarten classroom is moderate, in which instructional support would be in low range and emotional support and classroom organisation would be in middle ranges (Hypothesis 1, see also Cadima, Leal, and Burchinal 2010; Leyva et al. 2015).

The second aim was to investigate the effects of teacher-child interaction on children’s classroom engagement and disaffection. Previous studies have reported the relationships between teacher-child interaction quality and children’s engagement and disaffection (Reyes et al. 2012; Siekkinen et al. 2013). Therefore, we expect that children in the classrooms with better quality of teacher-child interaction will be more engaged and less disaffected (both emotionally and behaviourally) in learning (Hypothesis 2, see also Hamre et al. 2014; Reyes et al. 2012; Rimm-Kaufman et al. 2009; Searle et al. 2013).

**Methods**

**Participants**

Participants were 1474 children (ages 4–6) and 60 teachers from 12 kindergartens in three Vietnamese cities. Of those children, 772 (52.4%) were boys and 702 (47.6%) were girls. Of the 60 teachers, 58 were female and 2 were male. There were two teachers per classroom. In this study, we counted one teacher/class if one teacher taught mainly in all the observation cycles, and the same teacher rated children’s classroom engagement and disaffection, and count two teachers/class, if two teachers taught in the observation cycles, and two teachers assessed children’s classroom engagement and disaffection together.
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All the schools were located in urban areas. Seven schools were private and five schools were public. Kindergarten classroom size ranged from 7 to 50 children. The reason for the large variance in the number of children per classroom was that one kindergarten participating in the study was newly established and had only one preschool class with six children who met the age requirement of the study. Of all the classes, 50% had 41–50 children, 22.8% had 31–40 children, 21.1% had 21–30 children, 3.5% had 11–20 children, and 1.8% had fewer than 10 children. On average about 27 children were present in the classroom during the observation.

The ethical procedures of the study
The study complied with the Finnish Advisory Board of Research Integrity (2012) principles and the National Advisory Board on Research Ethics guideline (2009). According to the guideline, the ethical principles of research in the humanities and social and behavioural sciences are divided into three areas; (1) voluntary participation (2) avoiding harm and (3) privacy and data protection.

Researchers contacted the kindergartens in Vietnam for the participation to the study. The information of the study (the purpose of the research, expected duration and the procedures) was sent to the kindergartens for their consideration. Schools and teachers, who voluntary agreed to participate in the study, signed the agreement of participation.

Children and their parents were informed by the teachers about the study before the observations. The parents were informed to decline their child/children participation from the study without any reason. The study was carried out during the normal activities of the kindergartens. All the mental and physical harms were avoided, and the teachers and children were treated with respects. The researchers observed and recorded the classrooms activities and teachers filled the questionnaires after that. The researchers did not interfere the classrooms activities during the data collection. Most of the classes were recorded in one day, some were recorded in two days. Altogether 118 observation cycles were recorded and 1,474
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children’s engagement and disaffection data were collected. One observation cycle was 25 to 30 minutes, of which 15 to 20 minutes were observation and 10 minutes were for rating. On average, four 25-minute observation cycles per class were obtained.

The research data were protected for the identification of the participants and kept confidentially. Only researchers involved in the research project could access the data. Children and teachers’ names and other personal information were coded to protect their privacy.

**Measures**

**CLASS:** The quality of teacher-child interaction was measured using the Pre-K version of the (CLASS (Pianta, La Paro, and Hamre 2008), which included 10 dimensions: PC, NC, teacher sensitivity (TS), regard for student perspectives (RSP), behaviour management (BM), PD, instructional learning formats (ILF), concept development (CD), quality of feedback (QF), and language modelling (LM). According to Hamre et al. (2013) and the CLASS pre-K manual (Pianta, La Paro, and Hamre 2008), PC refers to respect, enjoyment, positive communication, and the relationship between teachers and students and among students. NC refers to disrespect, control, punishment, aggression, and anger between teachers and students and among students. TS refers to the degree of the teacher’s awareness and assistance with students’ difficulties. RSP refers to the teacher’s cooperation with student’s ideas and perspectives. BM refers to how effectively teachers monitor, prevent, and redirect students’ misbehaviors. PD refers to classroom routines, teacher’s preparation, and activity organization in order to maximize students’ learning time. ILF refers to how effectively teachers use facilities and materials to help students be engaged and interested in lessons. CD refers to the way that teachers support students’ analysis and reasoning skills by promoting students’ creation and integrating lessons with previous knowledge and the real world. QF refers to the way teachers extend students’ knowledge and encourage students’ learning through feedback or responses to students’
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questions and ideas. LM refers to the way teachers promote students’ language development by using conversation, open-ended questions, repetition, extension, and advanced language (Hamre et al., 2013; Pianta, La Paro, and Hamre 2008).

Each subscale is scored on a 7-point scale, with scores of 1 and 2 considered to be in the low range; 3, 4, and 5 are mid-range; and 6 and 7 are high range (Pianta, La Paro, and Hamre 2008).

In this study, we examined the validity of the CLASS in Vietnam through two types of validity: construct validity (we found evidence supporting three-factor model of the CLASS in Vietnam, details of construct validity are presented in the results section), predictive validity (whether three domains of the CLASS predicted children’s classroom engagement and disaffection, details of the predictive validity are presented in the result section).

Reliability of the CLASS was measured by interrater reliability and internal consistency reliability. For the interrater reliability, two independent coders coded video clips separately. Both the coders spoke and understood Vietnamese and English, and have master’s degrees. The main coder was formally trained and certified as a CLASS coder. The second coder was trained by a certified CLASS coder. The training consisted of two sessions: a training session (four times at two hours) and a practice session (two times at two hours). Intraclass correlation (ICC) using a two-way mixed-effect model and absolute agreement type was used to estimate the interrater reliability. In the first practice, the reliability was not high (the ICCs of TS and CD were .64 and .63, the ICCs of other dimensions were ranged from .70 to .93). In the second practice, after discussions and added training, the reliability was satisfactory (the ICCs of all dimensions were ranged from .71 to .95). The third time, all the video clips were double coded. The reliabilities of the third time coding were reported in table 1. The reliability coefficients (Cronbach’s alphas) of three domains of the CLASS were as follows:
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emotional support ($\alpha = .88$), classroom organization ($\alpha = .95$), and instructional support ($\alpha = .91$).

**EVSD (Engagement versus disaffection):** Children’s classroom engagement and disaffection were measured using teacher reports of student engagement versus disaffection EVSD (Skinner, Kindermann, and Furrer 2009). The instrument consists of 20 items of engagement and disaffection in the classroom and 12 items of reengagement (optional). In this study, we examined only the engagement and disaffection dimensions and excluded the reengagement dimension from the analysis.

Children’s classroom engagement and disaffection were rated on a 4-point scale (1 = not at all true, 2 = not very true, 3 = sort of true, 4 = very true). The engagement dimension includes eight items (e.g., ‘When we start something new in class, this student participates in discussions’). Disaffection consists of 12 items (e.g., ‘When we start something new in class, this student doesn’t pay attention’). The summary score of each scale was calculated by averaging the items. Cronbach’s alpha reliabilities were .88 (for engagement) and .90 (for disaffection).

The reliability and validity of EVSD have been examined in a number of studies (Skinner et al. 2009; Lloyd 2014). The validity of EvsD with Vietnam data was examined and reported in another paper of the authors.

**Data analysis strategy**

We first examined the structure of the CLASS using the confirmatory factor analysis (CFA) and performed descriptive and correlation statistics for the dimensions and domains of CLASS. Second, we fitted six multilevel (fixed-effects and random-effects) models to examine
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the effects of teacher-child interaction quality on children’s classroom engagement and disaffection. Statistical analyses were carried out by SPSS 21, Mplus V.7, and HLM 7.

Results

Structures of the CLASS

In previous studies, different factor models of CLASS have been used in different educational contexts: two-factor and three-factor models fit the U.S. data (La Paro, Pianta, and Stuhlman 2004; NICHD Early Child Care Research Network 2002), the three-factor model with nine dimensions was the best fit for the Finnish data (Pakarinen et al. 2010). The three-factor model with 10 dimensions was used in the German, Chilean, Portuguese, and Chinese contexts (Cadima, Leal, and Burchinal 2010; Hu et al., 2016; Leyva et al. 2015; Suchodoletz et al. 2014). Therefore, we tested different factor models (one-factor model, two-factor model, and three-factor model) of CLASS to find the best fit model for our data. The models were examined by CFA. The fit of the model was determined by four goodness-of-fit indices: the comparative fit index (CFI), the Tucker–Lewis index (TLI), the root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). According to Hu and Bentler (1999), the recommended cut-off values for a well-fitting model are closed to .95 (for CFI and TLI) and below .05 (for RMSEA and SRMR).

First, we tested the one-factor model with all 10 dimensions (PC, NC [recoded], TS, RSP, BM, PD, ILF, CD, QF, and LM). The results of the first attempt showed that the model did not fit the data well (CFI = .80, TLI = .74, RMSEA = .25, and SRMR = 0.08). After checking the modification indices, we correlated the residuals of TS with residuals of RSP, the residuals of QF with the residuals of LM and CD, and the residuals of LM with the residuals of CD. Then, we performed the CFA again, and the results of the second test showed that model fit had been improved (CFI = .93, TLI = .90, RMSEA = .16, and SRMR = 0.04).
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Based on the previous study of La Paro et al. (2004), we hypothesized that CLASS has two factors: emotional support (PC, NC, TS, RSP, and BM) and instructional support (PD, ILF, CD, QF, and LM). The results of the first CFA’s attempt showed that the two-factor model did not fit the data well (CFI = .79, TLI = .73, RMSEA = .24, and SRMR = 0.08). After checking the modification indices, we correlated the residuals of TS with the residuals of RSP and the residuals of QF with the residuals of LM, CD and ILF. Then, we performed the CFA again, and the results showed that model fit had been improved, but was still not a good fit (CFI = .91; TLI = .90, RMSEA = .17, and SRMR = 0.05).

Finally, we tested the three-factor model with emotional support (PC, NC, TS, RSP), classroom organization (BM, PD, ILF), and instructional support (CD, QF, LM). The results of the first attempt were CFI = .90, TLI = .86, RMSEA = .17, and SRMR = 0.06. After checking the modification indices, we correlated the residuals of TS with the residuals of RSP and NCRe (recoded NC), and the residuals of PD with the residuals of PC. Then, we performed the CFA again, and the results of the second test showed that model fit had been improved and suggested an acceptable fit (CFI = .96; TLI = .94, RMSEA = .11, and SRMR = 0.04).

Therefore, we used the three-factor model for further analysis. The factor loadings of the three-factor model are presented in Table 1. The quality of teacher-child interaction in Vietnamese kindergartens

The teacher-child interaction quality in Vietnamese kindergarten was moderate; most of the dimensions ranged from mid to high levels, except NC. Among the dimensions, PD got the highest score and NC got the lowest score. Among the domains, classroom organization had highest score (M= 5.91), followed by emotional support (M=4.67); instructional support had the lowest score (M=3.02). The means and standard deviations of the dimensions of CLASS in Vietnam are shown in Table 1.

Please insert Table 1 here
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Correlations among the dimensions and domains of the CLASS instrument are shown in Table 2. All the dimensions associated significantly with each other; the lowest correlation was between LM and RSP ($r = .37, p < .001$), and the highest correlations were between ILF and PD ($r = .84, p < .001$) and between NC and PC ($r = -84, p < .001$). Most of the dimensions were positively correlated with each other, except NC was negatively correlated with all other dimensions. The correlations between the domains ranged from .69 to .77, where the correlation between emotional support and classroom organization was the highest.

Please insert Table 2 here

Effects of the teacher-child interaction quality on children’s classroom engagement and disaffection

The effects of teacher-child interaction quality on children’s classroom engagement and disaffection were examined by six fixed-effect and random-effect models. In those models, children’s engagement and disaffection and their dimensions were outcome variables at level 1 and emotional support, classroom organization, instructional support were level-2 predictors.

The summary of specified models with children’s classroom engagement as an outcome variable was shown below. Other models with classroom disaffection, behavioural engagement, emotional engagement, behavioural disaffection, and emotional disaffection as outcome variables were similar to the model below; therefore, we will not show them here.

Level-1 Model

$$\text{ENGAGEMEij} = \beta_0j + r_{ij}$$

Level-2 Model

$$\beta_0j = \gamma_00 + \gamma_{01}*(ESj) + \gamma_{02}*(COj) + \gamma_{03}*(ISj) + u_{0j}$$

Mixed Model

$$\text{ENGAGEMEij} = \gamma_00 + \gamma_{01}ESj + \gamma_{02}COj + \gamma_{03}ISj + u_{0j} + r_{ij}$$
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The results showed that emotional support and classroom organization significantly affected children’s classroom engagement, and none of the domains significantly affected children’s disaffection. Behavioural engagement was significantly affected by all domains of teacher-child interaction quality (emotional support, classroom organization, and instructional support) while emotional and behavioural disaffection were not significantly affected by any domains of teacher-child interaction quality. The findings suggested that the children in better organised classrooms will be more engaged. However, children in classrooms with higher emotional support, showed less engagement. Table 3 presents the results of fixed-effects and random-effects models.

Please insert Table 3 here.

Discussion

The main purposes of this study were to examine the teacher-child interaction quality in Vietnamese kindergarten classrooms and to estimate the effects of teacher-child interaction quality on children’s classroom engagement and disaffection. The findings suggested that teacher-child interaction quality were moderate in Vietnam, most of the dimensions of the teacher-child interaction quality in Vietnamese kindergarten classrooms were ranged from mid to high levels; NC was at the low level. The findings also suggested that emotional support and classroom organization were associated with children’s engagement.

Slightly different from previous research, which reported that emotional support tended to have higher quality and instructional support lower quality (Hamre and Pianta 2005; La Paro, Pianta, and Stuhlman 2004; Leyva et al. 2015; Pakarinen et al. 2010; Suchodoletz et al. 2014; Hu et al. 2016), the study’s results suggested that classroom organization had the highest quality and instructional support the lowest quality in Vietnam classrooms. The PD and ILF of the classroom organization domain scored high in Vietnam data. Teachers in Vietnam must follow a national teaching guide that describes what to teach and how to teach in a teaching session.
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Therefore, Vietnamese teachers tended to focus on organizing the classroom and determining how much information they had to teach or that the children needed to learn. Many activities were included in one teaching session, and this could be the reason why PD and IFL (also classroom organization) scored high in Vietnamese kindergartens. However, due to many and fast-paced activities in one teaching session, the teachers in the study were afraid of running out of time, which caused the teachers to ignore students’ ideas or fail to help students who did not have a strong understanding of the lessons. Hence, the score of emotional support was lower than those of other countries. Cultures and educational settings influences the interaction between children and teachers (Vygotsky 1978), the study has demonstrated that Vietnam had teacher-centred teaching style and large class size, thus Vietnam scored lower in TS and RSP when compared to those of other countries, for example, Finland (Pakarinen et al. 2010), Germany (Suchodoletz et al. 2014), and the U.S. (Pianta et al. 2008), implying that teachers, for example, in Finland were not only highly aware of children’s academic and emotional needs and effectively helped children in the difficulties, but also encouraged children to express their ideas and gave children more autonomy in learning than teachers in Vietnam.

As expected, we found that children engaged more both behaviourally and emotionally in the better organized classrooms. The finding is associated with the findings of previous research that children in a classroom with higher classroom organisation, had better inhibitory control (Hamre et al. 2014) and showed higher behavioural engagement (Rimm-Kaufman et al. 2009). As the theoretical framework “Teaching through Interaction” (Hamre et al. 2013) posited, classroom organisation and management enhance cognitive processes and self-regulation development in young children. We observed that teachers in classrooms with higher classroom organisation, effectively used rules and routines to involve children into learning, so children knew what they were expected to do. These consistent routines for behaviours fortified children’s self-behaviour management (Rimm-Kaufman et al. 2009). The well-organised
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classroom reduced the children distraction and optimised productivity, this might be because teachers organised the classroom in the way that teachers could observe all children and children could assess materials quickly, minimised the wasted time. It is noticed that teachers in better organised classrooms effectively encouraged children to participate in the activities. Children in these classrooms were interested in the learning, they raised their hands to answer the questions, volunteered to perform a song or tell a story. Because the class size in Vietnamese kindergartens was high, teachers and children did not have much direct interactions, however teachers effectively facilitated children learning and maximised their involvement into the activities. Inconsistent with previous studies (Reyes et al. 2012; Skinner and Belmont 1993), our study results revealed that instructional support did not significantly affect children’s classroom engagement and emotional support had a negative effect on children’s classroom engagement. Emotional support reflects the social and emotional connections between teachers and students and among students through verbal and non-verbal enjoyment of communications (Pianta, La Paro, and Hamre 2008). We noticed that children in more emotional-supported classes were more active and informal and social conversations were more prevalent in these classrooms compared to less emotional supported classes, however, when children engaged in those conversations and talking with each other, they were distracted from academic activities in the classroom and might fail to listen to teacher’s instructions.

Limitations and opportunities for future studies

There are some limitations that have to be taken into account in generalizing the results of this study in all educational settings. First, teachers rated children’s classroom engagement and disaffection; therefore, the ratings could be subjective. However, teacher-rating is still considered as an important method for assessing classroom engagement, several studies using teacher ratings have found significant effects (Reyes et. al 2012; Searle et al. 2013). To obtain
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more objective results, combination of different methods (i.e., teachers’ ratings and observations) could be used.

Second, the teaching sessions were videotaped, which may have caused the Hawthorne effect—the teachers and children were aware that they were being recorded, which may have motivated them to perform differently than without being videotaped. However, videotaped observation of the CLASS has previously been used and validated in several studies. (Cadima et al. 2010; Hu et al. 2016; Leyva et al. 2015; Pianta et al. 2005)

Third, this is a cross-sectional study, the teacher-child interaction quality was captured within one or two days, and the children’s classroom engagement and disaffection were measured once right after the recordings. Studies from My Teaching Partner data in the US (Pianta et al. 2008) or the First Step Study of Finland (Pakarinen et al. 2010, Siekkinen et al. 2013) have been measured teacher-child interaction over time and examined how the teacher-child interaction affect children learning in long term. Longitudinal studies in which teacher-child interaction quality and children’s engagement and disaffection are measured on multiple occasions during a school year would allow researchers to see change/stability of the CLASS scores across the time and give a better understand of the cause-and-effect relationship between teacher-child interaction quality and children outcomes.

Fourth, the uses of the assessments that were developed in western countries which may or may not be relevant in the same way in Vietnam and it is needed to understand the cultural relevance of these measurements before applying them to a new cultural context.

Conclusion

This study was one of the first large studies to examine the constructs of the CLASS in Vietnamese early childhood settings. The outcomes of the study indicate that classroom organization significantly associated with children’s classroom engagement positively. The results also reveal that NC in Vietnamese kindergarten classrooms was higher and that TS and
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RSP were lower than those of Finland, Germany and the US, which meant Vietnamese teachers were highly controlling of children’s behaviours and did not support children’s autonomy. This finding urges educators and policy makers in Vietnam to improve children’s autonomy if they want to gain the expected aim of “child-led” instead of “teacher-led” education as they have introduced the new ECE curriculum in 2009 (World Bank 2017). These study findings also provide more information for teachers and educators in Vietnam to improve the quality of interactions between teachers and children and the effectiveness of teacher instruction.

References


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Table 1. Factor loadings of the three-factor models of CLASS and interrater reliability in the Vietnamese context (N=118)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Emotional Support</th>
<th>Classroom Organization</th>
<th>Instructional Support</th>
<th>Interrater Reliability</th>
<th>Mean (SD)</th>
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<td>Positive Climate</td>
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<td>.77</td>
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<td>5.42 (1.50)</td>
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<tr>
<td>Negative Climate (recoded)</td>
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<td>.80</td>
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<tr>
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<td>.82</td>
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<td>3.89 (1.27)</td>
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<tr>
<td>Regard for Student Perspectives</td>
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<td></td>
<td></td>
<td>3.34 (1.42)</td>
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<tr>
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<td>.70</td>
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<td>6.15 (1.42)</td>
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<td>Instructional Learning Formats</td>
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<td>5.82 (1.57)</td>
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<td>Concept Development</td>
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<td>2.89 (1.18)</td>
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<tr>
<td>Quality of Feedback</td>
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Quality of Teacher-Child Interactions in Vietnamese Kindergartens

Table 2. Correlations between the dimensions and domains of the CLASS (N=118)

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**p<.01
### Table 3. Results of multilevel models of the quality of teacher-child interaction at two levels (N=1251)

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<th>Variables</th>
<th>Classroom Engagement Coeff. (SE)</th>
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<th>Behavioural Engagement Coeff. (SE)</th>
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<th>Emotional Engagement Coeff. (SE)</th>
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<td>-.18 (.10) *</td>
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<td>-.05 (.14)</td>
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*p<.05, **p<.01, ***p<.001