

Supporting Teachers in Vietnam to Monitor Preschool Children's Wellbeing and Involvement in Preschool Classrooms

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Abstract Vietnam is promoting active teaching and learning as a key strategy to enhance children's learning in preschools. This change depends largely on building the capacities of teachers to implement child-centered education in practice and handover the initiative for learning to children. Vietnamese teachers need to be better equipped with pedagogical skills to enhance children's wellbeing and involvement and to create optimal conditions for learning in classrooms. In 2016, as part of a professional development program for teachers to support the quality of their classroom practice through critical reflection, a collaborative pilot study was carried out to test the relevance and effectiveness of process-oriented child monitoring within the Vietnamese educational context. A process-oriented child-monitoring system was introduced to teachers in eight Vietnamese preschools that enrolled children aged from 3 to 5 years and which included primarily ethnic minority children. Teachers were taught observation skills to monitor children's involvement and wellbeing during classroom activities. Through professional development activities, including coaching, mentoring, and peer learning in school-based and inter-school teacher communities, teachers were encouraged to adjust their practices to the learning needs of the children in their classrooms, including children at risk for low engagement and involvement. This pilot study provides a strong case for the process-oriented child-monitoring system to be implemented at a larger scale in Vietnamese preschools.

Keywords Early childhood education · Preschool · Teacher professional development · Vietnam · Child wellbeing · Child involvement

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Résumé Le Vietnam promeut l'enseignement et l'apprentissage actifs comme stratégie clé pour améliorer l'apprentissage des enfants en maternelle. Ce changement dépend dans une large mesure d'un renforcement des capacités des enseignants à mettre en pratique une éducation centrée sur l'enfant et à donner aux enfants l'initiative de l'apprentissage. Les enseignants vietnamiens doivent acquérir de meilleures compétences pédagogiques afin d'accroître le bien-être et l'implication des enfants et de créer des conditions optimales pour l'apprentissage en classe. En 2016, comme composante d'un programme de développement professionnel des enseignants visant à soutenir la qualité de leur pratique en classe par la réflexion critique, une étude pilote collaborative fut menée pour vérifier la pertinence et l'efficacité d'un suivi des jeunes enfants axé sur le processus, dans le contexte vietnamien de l'éducation. Un système de suivi des enfants axé sur le processus fut présenté aux enseignants de huit maternelles vietnamiennes accueillant des enfants de 3 à 5 ans, dont essentiellement des enfants de minorités ethniques. Les enseignants reçurent une formation visant leurs habiletés d'observation pour superviser l'implication et le bien-être des enfants pendant les activités de la classe. Au moyen d'activités de développement professionnel, dont l'encadrement professionnel, le mentorat et l'apprentissage par les pairs dans les communautés scolaires et inter scolaires, les enseignants furent encouragés à adapter leur pratique aux besoins d'apprentissage des enfants de leurs classes, y compris les enfants présentant des risques de bas niveau d'engagement et d'implication. Cette étude pilote offre un puissant argumentaire à la mise en place du système de suivi des enfants axé sur le processus à plus grande échelle dans les maternelles vietnamiennes.

Resumen Vietnam está fomentando la enseñanza y el aprendizaje activos como clave estratégica para mejorar el aprendizaje en niños de edad pre-escolar. Este cambio depende, en gran medida, de la posibilidad de mejorar la capacidad de los maestros para llevar a la práctica una educación centrada en el niño, pasándole al mismo la iniciativa de aprender. Los maestros vietnamitas necesitan estar mejor equipados en cuanto a técnicas pedagógicas para mejorar el bienestar y la participación del niño, creando en el aula las condiciones óptimas para el aprendizaje. En el 2016, y como parte de un programa de desarrollo profesional para maestros que apoya la calidad de su trabajo en el aula a través de un proceso de reflexión crítica, se llevó a cabo un estudio piloto colaborativo para evaluar la pertinencia y efectividad del monitoreo del niño dentro del contexto educativo de Vietnam. Se enseñó a los maestros de ocho centros pre-escolares vietnamitas, con niños de 3 a 5 años de edad, que incluían niños de minorías étnicas, un sistema de monitoreo del niño orientado al proceso. Los maestros aprendieron técnicas de observación para monitorear la participación y el bienestar de los niños durante las actividades del aula. En las actividades de desarrollo profesional para maestros, que incluyeron entrenamiento, tutoría y aprendizaje de pares dentro de cada escuela y entre escuelas, se alentó a que los maestros adaptaran las prácticas pedagógicas a las necesidades de aprendizaje de los niños a su cargo, incluyendo a los niños que se pensaba podían demostrar poco interés y una participación pobre. Este estudio piloto sirve como argumento de peso en apoyo de la implementación a mayor escala

de un sistema de monitoreo de niños que esté orientado al proceso en centros pre-escolares de Vietnam.

Introduction

“All children are born wired for feelings and ready to learn” (Shonkoff and Phillips 2000, p. 386). From a neuroscientific perspective, early environments and nurturing relationships play a crucial role in fostering the development and learning of young children (Shonkoff and Philips 2000). Learning is a dynamic process and support for learning is most effective when it begins at an early age (Heckman 1999). According to Yasar et al. (2014), young children specifically learn through direct, first-hand, and interactive experiences. In the earliest years of development, there is a need for children to experience frequent and responsive interactions. In this article, an pilot study is described which tested the effectiveness and relevance of a process-oriented child-monitoring system that engaged preschool teachers in Vietnam to increase their awareness and reflective practices in order to support young children’s wellbeing and involvement in early learning.

There is now strong evidence of the social and economic returns of comprehensive early childhood education. Not only does investing in early childhood education result in significant economic benefits over time (Heckman and Masterov 2007), it also has high returns for individuals and families, as well as providing a strong equalizing power within society (Young 2014; Young and Richardson 2007). Recent research suggests that investments in early childhood can narrow the gap between high- and low-income families as the positive impacts of quality early childhood programs are particularly strong for children from more disadvantaged backgrounds (Heckman 1999; Yoshikawa and Kabay 2014). Therefore, government interventions, such as nurseries and preschools that target children from an early age, including those children growing up in disadvantaged environments, bring to society the highest potential return on investment of any educational policy. According to Yoshikawa and Kabay (2014), this is an essential strategy if we want to achieve the social inclusion aspirations of the Sustainable Development Goals by 2030.

Toward Quality Preschool Education Programs

The preschool education programs discussed in this paper refer to center-based early childhood education programs catering for 3- to 5-year-old children. Early childhood education programs can have a substantial impact on children’s early learning across all developmental domains (Yoshikawa et al. 2013). Developmental gains for young children largely depend on the quality of the early childhood education programs that they attend. Laevers (2005) considered it critical to define what constitutes “quality” in the context of preschool education and this question has been the subject of an ongoing debate. Laevers (2005) argues that, from the perspective of a parent, a head teacher or a curriculum developer, the question about quality mainly relates to provisions and expectations of the educational context and

the teacher's actions. These factors can include the infrastructure, the content of activities in the program, and the teaching methods.

Regarding the educational context, a distinction can be made between structure and process quality. According to Yoshikawa and Kabay (2014), structure quality is easier to measure and is often included in quality standards. Examples of structure quality are child-to-teacher ratio, safe physical settings, proper nutrition support, or skilled and well-compensated professional staff. Process quality on the other hand is much more challenging to measure (Yoshikawa and Kabay 2014). Process quality refers to the physical and social environment experienced by children, for example, the quality of interactions with peers and adults, the availability of developmentally specific and engaging activities, and a language-rich environment.

From the perspective of a policy maker, however, quality is more often defined in terms of expected educational outcomes (Laevers 2005). Myers (2006), on the other hand, emphasizes that the production of good outcomes is not always the result of high-quality preschool education programs. Measuring children's knowledge or skills does not necessarily suffice, as many individual characteristics as well as social or institutional barriers to learning and participation might influence a child's ability to perform. In particular with young children, a more formative assessment of different developmental areas can provide a better understanding of the progress that a child is making. Rather than merely focusing on a child's achievement, Profeta (2012) argued that the assessment in preschools should look at the entire learning experience of children. It should take into account the uniqueness of children's holistic development (Profeta 2012). According to Laevers (2005), the teacher as a practitioner is positioned between the educational context and the outcomes of education. The everyday actions of teachers are determined, in part, by the existing educational policies and curriculum, and secondly, by realist expectations about the actual development of individual children. A main challenge for teachers is to connect those two sets of expectations in a balanced manner.

Experiential education theory (Laevers 2011) claims that the most economical way to assess the quality of an educational setting, from the perspective of the learner, is to focus on two process dimensions: *emotional wellbeing* and the *level of involvement* of the learner. The first process dimension, wellbeing, refers to the degree to which the basic needs of the child are met and children feel at ease, act spontaneously, and show vitality and self-confidence. The second process dimension, involvement, can be observed when children show concentration and focus, interest and curiosity for learning and are operating at the limits of their potential. According to Laevers (2005), good teachers are those who are able to simultaneously address children's wellbeing and involvement. Ensuring high levels of emotional wellbeing through a positive class climate is a condition for learning but is insufficient in itself, while involvement can only be high if children feel comfortable and at ease.

Preschool in Vietnam: Access and Quality Issues

In the Asia-Pacific region, Vietnam has been applauded by the World Education Forum (2015) for its progress made over the previous decades toward the

“Education for All” agenda. In 2009, the Ministry of Education and Training increased its focus on preschool education and, in line with attention to other educational systems; the country has established solid foundations in the provision of public preschools. In 2010, the Prime Minister of Vietnam promulgated a *Framework on Universal Preschool Education for Children Age Five Years in the 2010–2015 period* (Socialist Republic of Vietnam 2010). By 2012, Vietnam had already established public preschools in all communes of the country. While its coverage increased toward universalizing preschool education services for 5-year-old children, Vietnam also aims to increase the reach among all 3- to 5-year-old preschool-aged children to 80% throughout the country (Socialist Republic of Vietnam 2012).

According to the Ministry of Education and Training (2013b), there were 1442,706 children aged 5 years at the time of the 2009 Census, and only 12% did not attend preschool. However, the Census also pointed to a great disparity in the out-of-school rate among different ethnic groups. The proportion of children not attending preschool is 37% of Khmer children and 35% of H’Mong children. These rates are three times higher than for 5-year-olds who belong to the majority Kinh ethnic group. This disparity along ethnic lines has been recognized as one of the major challenges by the Ministry of Education and Training in the Education Development Strategic Plan for 2011–2020. Gaps in education between rich and poor ethnic population groups and between regions are currently increasing, so there are greater risks of inequalities in access and increased gaps in terms of education quality between regions.

However, a focus on only equitable access does not lead to the opportunity for all children to fulfill their potential, as inequality of learning outcomes is also a central concern. The World Bank (2012), for example, showed that children from disadvantaged groups in Vietnam who show promise at age 5 years are unable to sustain that promise by the age of 8. Therefore, “closing the gap in early childhood development and education quality is needed both for equity and efficiency of the education system” (World Bank 2012, p. 173). According to the Early Development Instrument (EDI) survey (Ministry of Education and Training 2013a), 25% of Vietnam’s 5-year-old children are vulnerable and 50% of Vietnamese 5-year-olds are at risk of vulnerability in at least one of the developmental domains (physical health and wellbeing, social competence, emotional maturity, language and cognitive development, and communication skills & general knowledge). The Early Development Instrument (EDI) showed that the percentage of children not ready for school is highest among children of ethnic minority descent and from disadvantaged backgrounds. These children often face various socioeconomic, language, and cultural barriers that affect their wellbeing and involvement and, hence, their learning and participation. Although preschool teachers play a central role and hold responsibility to ensure high levels of wellbeing and involvement among all children, including disadvantaged and ethnic minority preschoolers, they have insufficient capacity to support vulnerable preschoolers in the development toward their full potential (Ministry of Education and Training 2013a).

In addition to the progress made toward equitable access, policies in Vietnam support the quality agenda in early childhood education. Article 5 of the Vietnamese

Education Law stipulates requirements on contents and methods of education. According to the article, the main purpose for early childhood education is “to help children develop comprehensively through organizing play activities while giving special attention to example posing, encouraging and promoting” (Socialist Republic of Vietnam 2005, p. 9). The Ministry also adopted new “Regulations on Standards for Assessing the Education Quality of Preschools” which serve as a “framework for promoting, measuring, and reporting on quality of service delivery and instruction in preschools” (World Bank 2013, p. 4). Finally, the Ministry’s concern for quality has also resulted in a nation-wide application of Early Learning and Development Standards by 2014, as well as “a renovated preprimary education curriculum to make it more child-centered, integrated, flexible, play-based and individualized” (Shaeffer 2015, p. 30).

The Current Study: Child Observation as a Catalyst for Preschool Quality Improvement

If preschool teachers are equipped with the necessary child observation skills focusing on signs of wellbeing and involvement, they can observe both process dimensions in real time as children interact with their learning environment. According to Laevers and his colleagues (2012), these experiences allow teachers to understand which children are doing well and which children are at risk of not learning. Building on these direct experiences with children, teachers can then take actions to address educational needs of children who are experiencing barriers to learning and participation (Booth and Ainscow 2016). Those barriers can relate to the nature of the learning environment, activities and quality of interactions provided in the preschool.

For teachers, involvement and wellbeing form a very practicable and stimulating point of reference to improve the quality of education as it provides “immediate feedback on the quality of (planned) interventions” (Laevers 2005, p. 8). This corresponds to a fundamental professional development need for Vietnamese preschool teachers to increase their capacities to implement a more child-centered, integrated, flexible, play-based, and individualized preschool education. In order to answer to this need and the equity challenge, the Flemish Association for Development Cooperation and Technical Assistance in Vietnam (VVOB Vietnam) decided to introduce Laevers’ process-oriented child-monitoring system in Vietnamese preschools (age 3–5) with a majority of ethnic minority children and to look at the system’s impact by means of a participatory pilot study. VVOB is a program organization specialized in improving quality of education systems. In Vietnam, VVOB provides technical assistance that reinforces capacities of government and local education authorities in early childhood education.

This pilot study examined the feasibility and effectiveness of the process-oriented child-monitoring system within the Vietnamese context in order to enable teachers to take relevant actions to enhance preschool children’s learning. This study reports levels of quantitative change in preschool teachers’ ratings of children’s emotional wellbeing and classroom involvement, as important dimensions of children

readiness to learn, across a period in which teachers participated in a professional development program to improve practice.

Methodology

The authors carried out this research from December 2015 to June 2016 in close collaboration with teams of teachers ($n = 40$), school leaders ($n = 8$), lecturers of teacher training institutes ($n = 8$), and provincial and district education officers ($n = 4$). The study was characterized by a shared commitment to enhance the learning outcomes of preschoolers in Vietnam by improving local educational practices. The research was carried out in the districts of Thai Nguyen City and Vo Nhai (both Thai Nguyen province) and Nam Giang (Quang Nam province). Over the three districts, a total number of 16 classes from 8 preschools were selected based on the ethnic diversity of their student populations (see “Appendix 1” section).

The total student sample was 519 children (188 in Thai Nguyen city, 115 in Vo Nhai district and 216 in Nam Giang district) and included preschool children from 14 different ethnic groups, including Kinh (231), Co Tu (137), Tay (65), H'Mong (37), and other ethnic groups (49). These children were enrolled in main or satellite classes and in single- or multi-age classes.

Process-Oriented Monitoring for Readiness to Learn in the Early Years

The overall approach of the pilot study was built around the Process-oriented Monitoring System for the Early Years (Laevers 2011; Laevers et al. 2012). This framework enables preschool teachers to identify and respond to learner diversity in preschool classes. A first step in the monitoring system consists in the observation and measurement of children's levels of wellbeing and involvement in school. Laevers (2011) and Laevers et al. (2012) developed a five-point scale, the Leuven Scale (see “Appendix 2” section). This scale includes a methodology for the observation and screening procedure through which teachers assign ratings to children on dimensions of wellbeing and involvement, based on the teachers' observations over a period of a few weeks. Once the class group is screened, children are classified into three groups: Group 1/high (high ratings of 4 or 5 for wellbeing and involvement indicate that children are likely to be engaged in learning); Group 2/medium (moderate ratings, including at least one rating of level 3 or unknown, and no rating below level 3 indicates that children at risk of not engaging in learning effectively); Group 3/low (low ratings of 1 or 2 on the rating scale indicates that children are not likely to be effectively engaged in learning).

Teachers then carry out a more in-depth analysis of the barriers leading to lower levels of wellbeing and/or involvement for specific children. This analysis forms the foundation for a class-based intervention for individual children and an examination of the overall learning context and the teachers' approaches. Laevers (2011) and Laevers et al. (2012) developed an inventory of potential initiatives and actions by teachers to support the wellbeing and involvement of children in the classroom

environment. These class-wide actions include a focus on the available physical setup of the classroom, materials and activities. The actions include using children's interests for activities and nurturing children's initiatives, by providing stimulating activities, supporting relationships, and exploring children's behaviors, feelings, and values.

Building the Pedagogical Capacity of Preschool Teachers

By implementing a professional development process for teachers to support the quality of their class room practice and to attune teachers to the importance of children's wellbeing and involvement to support learning, the pilot study aimed at testing the relevance and effectiveness of the process-oriented child-monitoring system within the educational context of Vietnam. Educational officers, teachers, and lecturers collaborated to implement five steps to guide the cycle of the study. This stepped process was designed as a pragmatic learning experience for teachers that focused on reflection *on* and *in* action (Korthagen 2001; Scales 2013).

Step 1: Training on Child Observation

All educational stakeholders (e.g., school leaders, teachers, and trainers) came together for a two-day training program focused on observing, recognizing and rating children's wellbeing and involvement using the Leuven Scale. As earlier studies have indicated, the use of evidence can create space for teachers to reflect on existing discourses and practices in order to move policy and practice forward (Messiou et al. 2016; Miles and Ainscow 2011). The training made use of video clips of real-class experiences in Vietnam to enable teachers' reflection on their own practice. By the end of the first training program, teachers had developed a plan for implementing their first class screenings.

Step 2: Onsite Support Through Coaching and Peer Learning

Following the training, teachers practiced their observation skills and implemented the class screening process. To support teachers in this process, lecturers from teacher training institutes visited the schools in January and February 2016, during which time they also documented children's learning in the classrooms with videos and photographs. The lecturers engaged in joint reflection with the teachers on the observed levels of children's involvement and wellbeing.

Step 3: Reflection Session on Barriers to Learning and Participation and Action Points

Building on the findings of the class screening, teachers were again included in a second training program focused on barriers and action points. Teachers were guided to categorize children's learning using a color code: "green" (doing well in the setting), "orange" (at risk of not learning and requiring attention) and "red" (concern for learning and requiring immediate action). The teachers reflected upon

the social barriers to children's learning and participation. Building on the reflective processes, the teachers explored potential action points for implementing experiential learning practice according to the needs of the children in their classroom.

Step 4: Coaching Visits and Documentation

Preschool teachers finalized their first action plans for implementation. By the end of March 2016, lecturers from Karel de Grote University College (Belgium) and VVOB Vietnam visited project schools to look at the progress made and identify teachers' challenges during implementation of the child-monitoring system. As the teachers had no other existing Vietnamese practices to relate to, the technical support and assistance was essential to these coaching sessions and for understanding how this experiential approach could fit within the Vietnamese preschool context.

Step 5: Reflection and Peer Learning for Implementation

Following the first period of implementation, the teachers, school leaders, and educational officials gathered with their results of the second screening for a 2-day reflection workshop. While lecturers from teacher training institutes and school leaders worked on strengthening their skills to facilitate systematic reflection with teachers, the teachers discussed the results from their second screening of the children in their class and their experiences with implementing the action points. As the workshop was hands-on, differentiated, and focused on peer learning, the participants were offered many opportunities to receive and give critical feedback and to benefit from this additional input.

Step 6: Finalization and Documentation

Following the reflection workshop, as well as additional peer consultations and coaching from VVOB Vietnam through school visits, teachers drafted their final action plans. By the end of the project in June 2016, preschool teachers in Quang Nam and Thai Nguyen had implemented a variety of actions in their preschools with the aim to increase the wellbeing and involvement of children. The process and results of this intervention process were documented and shared by VVOB Vietnam and partners through stories of change and display of newly developed materials and child-initiated products during a final closing workshop.

Results

Throughout the study, teachers collected ratings on the dimensions of involvement and wellbeing during each of the class screenings for 513 out of 519 children. For the remaining six children, some class screening data were missing due to children's temporary absence. Between the first class screenings in January and the final screenings in May 2016, teachers reported higher ratings for wellbeing and/or

Table 1 Change in teacher ratings of children's wellbeing and involvement across the overall intervention period (from first-class screening to third-class screening)

Child ratings	Thai Nguyen city (% , n)	Vo Nhai district (% , n)	Nam Giang district (% , n)	Total (3 districts) (% , n)
Positive change (higher ratings)	74 (138)	56 (63)	76 (163)	70 (364)
No change	24 (44)	44 (50)	22 (47)	27 (141)
Negative change (lower ratings)	2 (4)	0 (0)	1 (4)	2 (8)

Table 2 Changes in group categorizations across the three class screening occasions

	Class screening 1	Class screening 2	Class screening 3
Green group (Child is doing well)	125	260	343
Orange group (Child is at risk)	267	208	157
Red group (Child needs immediate support)	125	47	14

involvement for 71% ($n = 364$) of the observed children ($n = 513$). For 27% ($n = 138$) of children the scores remained the same, while 2% of children ($n = 8$) were rated less positively by teachers (Table 1).

Following Laevers et al. (2012) Leuven Scale, children learning levels could be categorized into three groups: Group 1/“green” (level 4 or 5, children are doing well in the setting), Group 2/“orange” (Ratings of 3 or unknown, children are at risk and require attention), and Group 3/“red” (Ratings of 1 or 2, child wellbeing and involvement are a major concern and require immediate action). Table 2 categorizes children in “red,” “orange,” and “green” during the first-, second-, and third-class screening.

At the start of the research period in January 2016, only 1 out of 4 children were classified in the green category; this increased to 2 out of 3 by the end of the research period in May of the same year. More specifically, the proportion of children in the red category reduced from 24 to 3% and in the orange category from 52 to 31%. Over the same period, the proportion of children in the green category increased from 24 to 67%. Increases in the ratings of levels of wellbeing and involvement of children were reported by teachers in each of the participating districts, as indicated in Table 1.

However, the observed levels of learning in Thai Nguyen city were higher at the start of the research compared to the two mountainous districts of Vo Nhai and Nam Giang. These differences between districts were also noted at the end of the research project. Despite those initial differences, however, all districts showed a decrease in the proportion of children who has ratings that placed them in the “red” category, while the proportion of children who had ratings for wellbeing and involvement in the orange and green categories increased (Table 2). This change was observed in each of the districts (Table 3). These changes provide an indication that, according to the ratings reported by teachers, a majority of reached children became more engaged in learning.

Table 3 Number of children in green, orange, and red groups across three districts across the class screening occasions

District	Class screening 1	Class screening 2	Class screening 3
Thai Nguyen city			
Green group	50	238	150
Orange group	89	51	33
Red group	49	9	3
Vo Nhai District			
Green group	31	51	61
Orange group	51	49	47
Red group	32	15	6
Nam Giang District			
Green group	44	81	132
Orange group	127	108	77
Red group	44	23	5

Ethnicity and Learning

National data from the General Statistics Office (2011) and the Ministry of Education and Training (2013a) have pointed to the existence of significant gender and ethnic disparities in learning among children in Vietnam. Therefore, in order to capture those disparities and determine whether changes in levels of involvement and wellbeing had been conditional upon children's sex and/or ethnic origin, the research data were differentiated by the different districts that were involved in this research.

To analyze differences in involvement and wellbeing among children of different ethnic groups, the researchers looked at the two most ethnically diverse, disadvantaged districts of Quang Nam Province, namely Vo Nhai and Nam Giang. Both districts included several ethnic groups of which accounted for less than 10% of the total number of participating children. Only those children belonging to the two largest ethnic groups were selected for comparative analysis based on ethnicity. Due to the predominance of children of Kinh descent (84%) in the school population of Thai Nguyen City, this district was not included in this analysis.

Among the 113 children in Vo Nhai district, 41% ($n = 46$) belonged to the Tay ethnic group and 33% ($n = 37$) belonged to the H'Mong ethnic group. The remaining 27% ($n = 30$) of children were either Cao Lan ($n = 12$), Kinh ($n = 11$), Nung ($n = 4$), Dao ($n = 1$), or San Riu ($n = 1$). The ethnicity of one child was not specified. Among the 214 children of Nam Giang district, 30% ($n = 64$) belonged to the Kinh (dominant Vietnamese ethnic group), while 64% ($n = 137$) belonged to the Co Tu minority. The remaining 6% ($n = 13$) of children were either Tay ($n = 4$), Thai ($n = 2$), Ve ($n = 2$), Ta Oi ($n = 2$), Ta Rieng ($n = 1$), Bhnong ($n = 1$), or Nung ($n = 1$) descendants.

On the teachers' rating for individual children, the research data of Vo Nhai district indicated a clear discrepancy in levels of wellbeing and involvement

between Tay and H'Mong children. At the start of the project, higher ratings were observed among 30% of Tay children, this was only the case for 17% of children of H'Mong descent. Although by the end of the research, the number of children doing well in preschool had doubled in both ethnic groups, the existing disparity remained present (61% of Tay children versus 38% of H'mong children). A similar trend could be observed in Nam Giang district. Initial data indicated high levels of wellbeing and involvement with 30% for Kinh children compared to 17% of Co Tu children. According to the final observation data, at the end of the research project, the proportion of children doing well increased to more than double for both Kinh and Co Tu children to, respectively, 72 and 56%.

Gender and Learning

Similarly, a strong increase in children rated as doing well could be observed for both girls and boys in all districts. However, with regard to gender equality, the research data also point to the existence of two important challenges. Firstly, while data from Vo Nhai and Nam Giang districts indicated gender parity in terms of access to preschool education, in Thai Nguyen an unbalance existed in favor of boys. The reasons for this gender disparity are not yet clear and will require more in-depth research. In terms of learning in the classroom, on the other hand, teachers of all three districts observed higher levels of involvement and/or wellbeing by girls compared to boys. Class screenings show that at the start of the research project, 29% of girls in Thai Nguyen City were rated in the green category compared to 25% of boys. In Vo Nhai district, the ratio was 30–24% of boys, while in Nam Giang, 26% of girls compared to only 15% of boys were showing higher ratings. Similar gender differences were noted at the end of the research, with high levels of wellbeing and/or involvement among 88% of girls compared to 75% of boys in Thai Nguyen, 57% of girls compared to 50% of boys in Vo Nhai, and 66% of girls compared to 57% of boys in Nam Giang. These findings clearly show that although the marked gender differences are not as pronounced as those based on ethnic origin, boys generally appeared to be more at risk than girls of not being rated as highly by their teachers on the ratings for wellbeing and involvement.

Discussion

This research project was designed to build teacher professional capacity and skills that included cycles in which teachers reflected on their current practices. The research was embedded in day-to-day teaching practice and linked to teachers' direct experiences within classrooms. It focused on the establishment of school-based and within-school communities in order to enable collaborative peer learning among teachers. The central aim of this pilot study was to test the relevance and effectiveness of a process-oriented child-monitoring process within the Vietnamese educational context. From the research data, we can conclude that Vietnamese teachers, including those teaching in ethnically diverse and disadvantaged school districts, can make use of Laevers' approach to understand the learning needs of

children within their classrooms by assessing children's emotional wellbeing and involvement which are important dimensions that underpin children's engagement in learning.

All participating preschool teachers were able to utilize the rating scales to implement actions to improve their practices and their ratings for the proportion of pupils rated with high levels of wellbeing and involvement while reducing the proportion of children rated with lower levels of wellbeing and involvement. This monitoring approach may improve the effectiveness of teaching practice to understand the learning needs of individual children and increase learning equity for children from diverse ethnic backgrounds within preschools in Vietnam.

From Teacher-Centered Learning Activities to Child-Initiated Play Activities

An important factor in the quality of preschool education relates to the content of activities and teaching methods. During school visits in this project, preschool teachers, school leaders, and district administrators noted that children in their classrooms tend to engage more during play than during learning activities. This aligns with the findings of Kennedy and Barblett (2010), Hyvonen (2011) and Sandberg and Pramling Samuelsson (2003) who build a strong case for "learning through play" as a preferred approach for preschool teachers to support young children's holistic development. Worldwide, preschool education systems are increasingly adopting approaches that involve "learning through play", thereby strongly challenging countries with a more academically focused early education system, such as Vietnam. Rather than targeting specific content domains such as language and numeracy, international evidence supports a more holistic developmental approach to teaching preschool children.

Realizing quality preschool education largely depends on the capacities of teachers. Not only do teachers play a central role in offering support, inspiration, and challenges to children, they also are key in fostering a child's desire to make sense of the world (Pramling Samuelsson and Asplund Carlsson 2008). In view of quality preschool education, the focus of teachers should therefore be on communication and interaction processes, stimulation and support, and effective use of curricula (Yoshikawa et al. 2013). Throughout the world, a large variety of teacher professional development systems are in place that focus on building these and other skills with teachers. Many of those systems, however, mostly depart from a top-down and "one-size-fits-all" approach and miss out on crucial opportunities for addressing the learning needs of individual teachers or schools. This is also true for Vietnam.

Recent academic and evidence-based research points to the importance of school-based teacher professional development (Petty 2009; Yoshikawa and Kabay 2014). According to those studies, a particularly promising approach for improving the observed quality of preschool programs and an enabling positive change processes, is to build teachers' skills from within their own professional context, the classroom, through mentoring and coaching (Yoshikawa and Kabay 2014). Through coaching and mentoring, positive effects can be noted in strengthening both teacher-

child interactions and children's learning in targeted domains (Yoshikawa et al. 2013). For teachers to be effective in implementing change, they also need to be able to continuously question and (when necessary) change their beliefs as well as their teaching habits. However, such processes in reculturalization, as proposed by Fullan (2007), pose significant challenges to the early childhood teaching profession to implement pedagogical approaches that are child-centered rather than traditional teacher-directed practices (Dang and Boyd 2014). This is certainly the case for Vietnam.

Conclusions

While implementation of this project was on a relatively small scale, changes in teachers' practices did occur and in the teachers' ratings of children's levels of wellbeing and involvement. There was also enthusiasm from key stakeholders at national, provincial and district levels toward the process-oriented child-monitoring system. These findings provide a strong case for this approach to be implemented at a larger scale in Vietnamese preschools.

By the end of this research process, preschool teachers, school leaders, and district education officers repeatedly confirmed their motivation and commitment to continue the approach within their jurisdiction. Based on its observed and perceived positive impact, these stakeholders now acknowledge the importance of moving the focus of observations from class-level learning outcomes to children's individual learning processes. They also consider the approach a practical and tangible foundation for enhancing children's learning. The costs are low and the gains are high. The district and provincial education officers of the participating districts are now planning to gradually disseminate the process-oriented child-monitoring approach. However, there are limitations in the design of this research and future research efforts should look toward ensuring stronger methodological approaches through experimental and quasi-experimental designs to ensure the internal validity of studies, including a breath of measurement in understanding the impact of such intervention on child outcomes.

Finally, based on the research findings, we recommend investment in more research to explore the potential and effectiveness of school-based, reflective and collaborative teacher professional development approaches in Vietnam. This can provide a better understanding of the relationships between process quality and learning outcomes among preschoolers in Vietnam. Such studies could provide more powerful evidence to support the development of the national early childhood education system for policy makers, so that evidence-based practice can inform the delivery of quality early childhood education in Vietnam.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Appendix 1

See Table 4.

Table 4 Numbers of preschools and associated classes across the three participating education districts

	Thai Nguyen City	Vo Nhai District	Nam Giang District	Total (3 districts)
<i>Preschools</i>	2	2	4	8
Classes (total)	4	4	8	16
Classes (main)	4	2	4	10
Classes (satellite)	0	2	4	6
Classes (5-year-old children)	2	2	4	8
Classes (4-year-old children)	2	0	3	5
Classes (multi-age)	0	2	1	3

Appendix 2: Leuven Scale

See Table 5.

Table 5 Scales for wellbeing and involvement (pp. 11–12) adapted from Laevers et al. (2012)

Child wellbeing dimension		
Level 1	Has a difficult time	Children with very low wellbeing are clearly having a difficult time. They do not seem happy in the setting Moments of “true” pleasure are scarce or even nonexistent Children mostly seem anxious or tense or show hardly any vitality Contacts with their environment tend to be difficult Children are either in conflict with others, or they avoid contact Children don’t feel at ease in most situations
Level 2	Often does not feel okay	The picture obtained of the child shows elements of Level 1 but is less strongly expressed
Level 3	Feels more or less okay	Children with a moderate level of wellbeing in the setting are neither happy, nor unhappy Children look rather indifferent and if they show positive or negative signals these are seldom outspoken Enthusiasm is rarely observed, but neither do children display negative emotions Contacts with other children are rather superficial and have low intensity Basic needs are only satisfied to some extent: still many chances for real satisfaction slip away
Level 4	Often feels great	The picture obtained of the child shows elements of Level 5 is less strongly expressed

Table 5 continued

Level 5	Feels on top of the world	Children with a very high level of wellbeing in the setting seem like a 'fish in water' Children have a lot of fun, laugh a lot, they radiate Children enjoy what the environment has to offer and the other's company When Children feel unhappy, angry or frightened, they manage to get over it fairly quickly Most of the time children feel very happy: they enjoy life to the full Children's actions affect others and the group climate in a positive way
Scale for involvement		
Level 1	Hardly engages in activities	Children with a very low level of involvement often do not engage in any activity at all Children wander, appear absent-minded and tend to stare aimlessly When any activity occurs it is often short-lived or purposeless Children are easily distracted by surrounding noises, voices, movements... There is little mental activity. Children do not seem to take anything in Children often act without any effort or dedication
Level 2	Activity is often interrupted	The picture of the child obtained shows elements of Level 1 but is less strongly expressed
Level 3	Is busy, but seldom absorbed	Children with a moderate level of involvement are often occupied, but closer observation reveals that they are rarely engaged in what they do Children pay attention but signals of real involvement, such as concentration, being absorbed, intense mental activity, are rare Children appear to act in a routine manner, without much effort Children are also easily distracted and their activities seldom last long They do not show much drive while occupied with activities
Level 4	Is often intensely engaged	The picture of the child obtained shows elements of Level 5 but is less strongly expressed
Level 5	Is mostly completely absorbed	Children with a very high level of involvement are often absorbed and intensely engaged in their activities Signals of concentration, persistence and energy are strongly represented Children readily make choices and as soon as they have started an activity they are completely absorbed Even strong stimuli in their surroundings will barely distract them Children take pleasure in exploring the world and operate at the very limits of their capabilities

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