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A New Context Affording for Regulation: The Case of Musical Play

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A New Context Affording for Regulation: The Case of Musical Play

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Abstract

The present study set out to investigate theoretical speculations that regulation and musical play, an initial manifestation of musicality, are directly linked. This study aimed to explore the potential for regulation to occur during musical play and investigate the nature of the regulatory behaviours. Thirty-six children, aged 6 and 8, were observed during musical play sessions. These observations were analysed, using a coding framework, to identify and code regulatory behaviours as to the type of regulation, its social nature and the direction of activity. The data were subjected to quantitative analysis. The findings suggest that regulatory behaviours occurred during musical play. During musical play tasks, cognitive monitoring and emotional/motivational monitoring behaviours were the most prevalent, significantly more opportunities were provided for socially-shared regulation compared to self- or co-regulation, and the children more often directed their activity towards fundamental, rather than superficial aspects of tasks. The results can inform theory and practice.

Keywords: Self-regulation, co-regulation, socially-shared regulation, musical play, musicality

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Un Nuevo Contexto Favorecedor de la Regulación: El Caso del Juego Musical

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Resumen

El presente estudio se propuso investigar las especulaciones teóricas de que la regulación y el juego musical, una manifestación inicial de la musicalidad, están directamente vinculados. Este estudio tuvo como objetivo explorar el potencial de regulación que se produce durante el juego musical e investigar la naturaleza de los comportamientos regulatorios. Treinta y seis niños, de entre 6 y 8 años, fueron observados durante las sesiones de juego musical. Estas observaciones fueron analizadas, utilizando un marco de codificación, para identificar y codificar comportamientos regulatorios en cuanto al tipo de regulación, su naturaleza social y la dirección de la actividad. Los datos fueron sometidos a un análisis cuantitativo. Los hallazgos sugieren que se produjeron comportamientos regulatorios durante el juego musical. Durante las tareas de juego musical, el monitoreo cognitivo y los comportamientos de monitoreo emocional / motivacional fueron los más prevalentes, se brindaron significativamente más oportunidades para la regulación compartida socialmente en comparación con la auto- o la corregulación, y los niños dirigieron su actividad más frecuentemente hacia lo fundamental, en lugar de aspectos superficiales de las tareas. Los resultados pueden informar teoría y práctica.

Palabras clave: Autorregulación, corregulación, regulación social compartida, juego musical, musicalidad.

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The present study comprises an innovative endeavour to bring together research from two separate research strands: self-regulation[1] and musicality; both argued to be fundamental in children's lives (e.g. Bronson, 2000; Trevarthen, 2000). The two are examined separately, and are then brought together to articulate the research aim.

Self-regulation

Self-regulation is considered crucially important for children's development as learners (Baumeister & Vohs, 2004; Bronson, 2000; Hacker, Dunlosky, & Graesser, 1998; McClelland & Tominey, 2011). The model adopted for the purposes of this study considers *self-regulation* as the monitoring and control of all aspects of human behaviour, including cognitive, emotional, social and motivational elements (e.g. Boekaerts & Niemivirta, 2000; Bronson, 2000), while acknowledging metacognition as the central cognitive element of self-regulation (Whitebread et al., 2010). The present study relies heavily on the model developed by Whitebread and colleagues (2009b), which draws together the literature on self-regulation and suggests three basic elements of self-regulation: metacognitive knowledge (the individual's knowledge about personal, task and strategy variables affecting their cognitive performance), metacognitive regulation (i.e. the metacognitive processes during ongoing activities involving planning, monitoring, control and evaluation) and finally the monitoring and control of emotions and motivational states during learning tasks.

Early Emergence and Development

Self-regulation appears very early on in children's lives. Vygotsky (1978) argued that children move from being 'other-regulated' to being 'self-regulated'. The emergence of early self- and social-regulation processes has been evidenced in very young pre-verbal children, when pre-verbal means (such as gestures) of communicating meaning between infants and their caregivers are studied (Rodríguez & Palacios, 2007; Vallotton, 2008). Most recently, Brinck and Liljenfors (2013) brought together evidence to argue that metacognition has its developmental origin in early 'proto-conversations' (Bateson, 1979, as cited in Trevarthen, 2012) between infants and adults.

Within these proto-conversations and in an effort to maintain intersubjectivity (a shared understanding), monitoring and control strategies acquire inherent, pragmatic importance to the child. Hence, proto-conversations become a pragmatic context where infants internalise and construct monitoring and control strategies.

Self-regulatory skills have been argued to develop through children's engagement in playful activities (Bruner, 1972). When children play with peers, they act in their Zone of Proximal Development (ZPD), while trying to maintain intersubjectivity and by mutually scaffolding each other (Vygotsky, 1978). Make-believe play has attracted the majority of research in this area. This research suggests that make-believe's play specific characteristics, such as its rule-based nature, affordance for self-regulating language, (Berk, Mann, & Ogan, 2006; Vygotsky, 1978) and emotional regulation (Fantuzzo, Sekino, & Cohen, 2004; Galyer & Evans, 2001), encourage self-regulatory development.

One of the most cited studies in this area, which provides evidence that even young children can self-regulate in playful, and hence meaningful, contexts was the CIndLe study (Whitebread et al., 2009a, b). In this study, 3- to 5-year-old children from 32 classes were video-recorded over a period of two years, during class and play time. Self-regulatory events mostly occurred during playful activities, where on average 6.92 regulatory behaviours per minute were recorded. This study reported that different areas of self-regulatory behaviours appeared at different rates, with metacognitive regulation being the most prevalent, followed by metacognitive knowledge, and emotional/motivational regulation behaviours being the least frequent (Whitebread et al. 2009a). More specifically, playful situations appeared to mainly promote monitoring, control and planning behaviours (Whitebread et al, 2009b)

The Social Nature of Self-regulation

Notwithstanding the traditional focus on the individual element of self-regulated learning (Zimmerman, 1989), the social nature of regulation is currently an increasingly central theme (Hadwin, Oshige, Gress, & Winne, 2010; Volet, Vauras, & Salonen, 2009). Current research suggests that, apart from self-regulated learning, attention should be directed towards co-

regulation and socially-shared regulation (Hadwin, Järvelä, & Miller, 2011; Iiskala, Vauras, & Lehtinen, 2004).

In fact, the traditional definition of self-regulation employed above could be considered a more general definition of regulation, with the terms self-, co- and socially-shared regulation only employed when a differentiation between the regulation's social intentionality is to be made. To this end, self-regulated learning refers to regulating one's own learning and can be evident in both solo and collaborative tasks, while *co-regulation* is jointly negotiated and occurs in unequal situations when one partner masters a key element of the task but the other does not. *Socially-shared regulation* describes the egalitarian, complementary regulation of a task, with its ultimate goal being to co-construct regulation (Grau & Whitebread, 2012; Hadwin et al., 2010, 2011; Iiskala, et al., 2004; Järvelä & Hadwin, 2013).

Socially-shared regulation is often associated with higher performance and learning outcomes during collaborative tasks (Grau & Whitebread, 2012; Janssen, Erkens, Kirschner, & Kanselaar, 2012; Järvelä, Järvenoja, Malmberg, & Hadwin, 2013). Nonetheless, research findings present self-regulation as the most frequently coded type of social intentionality in children's group-work (Whitebread et al., 2007), and highlight a relative absence of high-level socially-shared regulation (Hurme & Järvelä, 2005). Evidently, the group nature of tasks is not sufficient prerequisite for socially-shared regulation to evolve. To this end, Perry and Winne (2013) and Winne, Hadwin and Perry (2013) stress the importance of tasks which prompt interdependent, dynamic, and coordinated work.

The Quality of Regulatory Behaviour

The interest in studying the quality of regulatory behaviour was pioneered by the aspiration to identify instances of productive and high level regulation. For example, Grau and Whitebread's (2012) research, on social aspects of children's self-regulated learning in primary science classes, identified the need to code for regulatory behaviours directed towards qualitatively different aspects of children's work. Their codes described whether each behaviour was directed to regulate the development of the task (fundamental or surface level), aspects related to the organisation of the group-work or socio-emotional aspects of the group-work.

The appearance of more positive qualitative aspects of regulation has been reported to facilitate higher quality regulation (Grau & Whitebread, 2012; Rogat & Linnenbrink-Garcia, 2011) . Nonetheless, recent research suggests that children, rather than regulating content understanding or fundamental aspects of tasks, often spend a considerable amount of time on superficial task components which are associated with lower quality regulation (Grau & Whitebread, 2012; Rogat & Linnenbrick-Garcia, 2011).

Therefore, it appears that simply examining the type of regulation exhibited cannot account for the overall effectiveness and quality of regulation. It is important to go beyond identifying the frequency of observed regulatory behaviours and move towards also investigating the quality differences in children's regulatory behaviour (Hurme, & Jarvela, 2005; Rogat, & Linnenbrick-Garcia, 2011). To address this, a separate hypothesis investigating the directions of activity was tested in this study.

Musicality

Defining musicality proves to be a very challenging endeavour (Hallam, 2007). The notion of musicality employed in this paper has been used in studies of communication between infants and adults, advocating for their innate musical character (e.g. Papousek, 1996; Trevarthen, 2000). This could more accurately be defined as communicative musicality: the 'human impulse to create and share music'(Trevarthen, 2012, p.259).

Musicality, in the notion of communicative musicality, has attracted a wealth of research supporting the view that music is fundamental in human lives and development. The first interactions between infants and caregivers, termed 'proto-conversations' (Bateson 1979, as cited in Trevarthen, 2012), are inherently musical, and underpinned by biological predispositions (Papousek, 1996; Trevarthen, 2000). In these proto-conversations, intersubjectivity is an essential attribute for successful communication (Trevarthen, & Aitken, 2001) and thus for the successful development of musicality. It should be noted here that the intersubjectivity required in these proto-conversations is also considered to be the basis on which metacognitive development is constructed (see Brinck & Liljenfors, 2013). Hence, a direct

link between musicality and self-regulation could be argued in that they both have their origins in proto-conversations.

Musical Play

The young child employs the 'internalised templates', built through the communicative and reciprocal interactions with the caregiver, as a source of musical play behaviours (Young, 2005). Musical play is universal and entails vocalisations, rhythmic bodily movement and play with sound-making objects (Tarnowski, 1999; Young, 2005) while allowing for exploration, improvisation and creation with sound (Lew & Campbell, 2005; Littleton, as cited in Tarnowski, 1999). In the present study, 'musical play' refers to the prevalent -in the literature- types of musical play: hand-clapping games, circle games, movement play, singing play and instrumental play (Harwood, 1998; Lew & Campbell, 2005; Marsh &Young, 2007; Pond, 1980; Tarnowski, 1999; Young, 2003, 2004).

Musical play shares many of the characteristics of other playful contexts, such as make-believe, that effectively foster self-regulation (Zachariou & Whitebread, 2015). These would include its rule-based nature (Marsh, 2008; Marsh & Young, 2007) and its reinforcement of self-regulatory language and emotional self-regulation (Bannan & Woodward, 2009; Barrett, 2009). Furthermore, musical play could potentially be a fertile ground for self-regulation, since it affords for early expertise (Custodero, 2009), social interaction, co-operation and co-regulation (Pound, 2010; Young, 2004), and by its very nature, encourages creativity, problem solving and exploration (Pound, 2010; Tarnowski, 1999). Bearing in mind that the fundamental characteristics that encourage the creation of the ZPD, such as intersubjectivity and scaffolding, are also evident in musical play (Bannan & Woodward, 2009; Marsh, 2008; Marsh & Young, 2007; Young, 2005) it appears that musical play could be a powerful context to support the development of children's self-and socially-shared regulatory abilities.

Self-regulation and Musical Play

This paper argues that musical play is a particularly powerful context affording opportunities for self-regulation. Theoretically, a direct link

between musical play and self-regulation could be argued in that they both have their basis in the intersubjectivity originating in the proto-conversations. The fundamental characteristics that encourage the creation of the ZPD, such as intersubjectivity and scaffolding, are evident in musical play (Bannan & Woodward, 2009; Marsh, 2008; Marsh & Young, 2007; Young, 2005). This is supported by recent research reporting that musical play, when conducted in groups, 'has the potential to intensify the intersubjective experience' between the players, based on the atmosphere it induces and the underlying cognitive mechanisms that are required for successful musical play (Rabinowitch, Cross, & Burnard, 2012, p.118). Scaffolding is also evident in musical play. In musical play, 'social synchrony' is an underlying value (Harwood & Marsh, 2012, p.326). It is, thus, usual that more adept children engage in playful tuition of novice players by scaffolding their peers' learning through adjusting the games or modelling to a level slightly beyond their peers' current abilities (Marsh & Young, 2007).

Research studying musical play in relation to self-regulatory behaviours is scarce. Self-regulatory behaviours during musical play have been incidentally reported by ethnographic studies (Harwood, 1998), without being named as such. The only two pieces of research so far explicitly targeting the relationships between self-regulation and musical play had their shortcomings. In the first, Winsler, Ducenne, and Koury (2011) compared 3- and 4-year-old children who had participated in music and movement classes (incorporating musical play) with controls, on their performance on laboratory self-regulation tasks. The findings suggested that children who were enrolled in music classes showed better self-regulation and used more self-regulatory language in the form of private speech. Nonetheless, the artificial setting, in which this study assessed children's self-regulation, limited the insights that could be gained from studying children's self-regulation *during* musical play. In the second study, Zachariou and Whitebread (2015) attempted to explore children's regulatory behaviours *during* musical play activities. An observational approach was adopted and the study was carried out in an elementary classroom in Cyprus by observing ten children aged 6 to 7 years engaged in musical play during their music lessons. Nonetheless, the results of this study remain tentative because of its small and particular sample and further research on a wider sample is clearly needed.

It was therefore considered worthwhile to undertake a larger study to explore further whether active engagement in musical play affords for the emergence of self-regulatory behaviours.

Aim, Research Question and Hypotheses

The present study's principal aim was to investigate the potential *for regulation* to occur during musical play. The present paper focuses on exploring whether or not regulatory[2] behaviours appear during musical play and investigating the nature of this regulation. Based on findings within the literature concerning regulation in children in various contexts, as reviewed above, specific hypotheses were tested, as follows:

Hypothesis 1: Different types of regulatory behaviours appear at different rates during children's musical play.

Hypothesis 2: Regulatory behaviours of different social intentionality (self-, co-, and socially-shared regulation) appear at different rates during children's musical play.

Hypothesis 3: Different directions of activity (towards fundamental, surface or group organisation aspects) appear at differing degrees during children's metacognitive regulation behaviours within musical play.

Methods

Sample

Participants were 36 Cypriot children coming from 6 different classes. A multilevel mixed-methods sampling technique (Teddlie & Yu, 2007) was employed. At the first level, purposive sampling took place in order to choose five (one taught two classes) music teachers. The crucial criterion when choosing the music teachers leading the musical play sessions was that they were very competent and confident (Pound, 2010), as well as willing to incorporate musical play into their music lessons. The five participating teachers were identified in consultation with music inspectors and one of the leading academic experts in music education in Cyprus. All the participating music teachers were highly experienced and qualified (three of them were

either holders of or working towards PhDs and/or master's degrees in music education).

At the second level, purposive sampling of children took place within the classes of these teachers using criterion sampling to choose six children from each class. The sampling aimed to have a representative sample of children across the range of regulatory abilities, as identified through the CHILD checklist[3] (Whitebread et al., 2009b). In Year 1, 18 children participated in the study and had a mean age of 78 months (6 years and 6 months) at the beginning of the study (range:70-81 months). In Year 3, the 18 children had a mean age of 101 months (8 years and 5 months, range: 97-107 months). In both year-groups, half of the children were girls.

Procedure and Measures

This study was strongly based on observational methods and developed within a socio-cultural framework. The study was implemented in Cyprus, at five different rural and urban primary schools. The children were observed during musical play sessions taking place in their music classes, where a repertoire of musical play activities was implemented. These observations were analysed, using a coding framework developed for the purposes of this study, to identify and code any regulatory behaviours.

Research design

Initially, the music teachers were informed of the aims, main concepts and procedures of the study. The rationale for informing the teachers was that in order to fully engage teachers' commitment, secure a rich execution of the innovation and increase the possibility that teachers will incorporate the innovation in their ongoing practice, it was essential that they were fully informed about the underlying theoretical foundations and purposes of the innovation (Coltman, Warwick, Wilmott, Pino-Pasternak, & Whitebread, 2013). This was also an important step in establishing rapport with the teachers and aided in maintaining open communication channels with the music teachers throughout the study.

Preliminary observations of the music classes took place, so that the children would become familiar with the presence of the observer, camcorders and microphones in their classes. Following this, five musical play sessions

were implemented in each class over five consecutive weeks. Each musical play session was dedicated to a different type of musical play (movement, instrumental, singing play, hand-clapping or circle games), and lasted approximately 30 minutes. Detailed lesson plans were created for all the sessions (see Appendix A for examples of activities). The sessions were video-recorded and an 'observer as participant' approach was adopted. The video-recordings were subsequently coded on the basis of a coding framework.

The play tasks introduced to the children contained elements of free play, yet mainly afforded 'guided play'. Thus the children's play was most often sensitively and responsively guided by an adult, within a meaningful for the children context. Extensive research advocates for guided play being a powerful tool for teaching and learning, with catalytic effects on children's intellectual, emotional, social, and linguistic development (Golinkoff, Hirsh-Pasek, & Singer, 2008; Hirsh-Pasek, Golinkoff, Berk and Singer, 2008).

In order to be coherent with the research purpose to explore the *potential* for regulatory behaviours to occur during musical play, the development of the musical play activities was based on literature related to contexts promoting regulatory development, since in this way it was more likely for this potential to be unveiled. Activities were devised in order to be interesting, challenging and open-ended, affording opportunities for children to control the level of challenge (McCaslin & Good, 1996; Veenman, 2011; Veenman et al., 2006; Whitebread, 2013). They also provided ample opportunities for collaborative group work and various kinds of peer-tutoring, since there is growing evidence that such collaborative forms of learning are able to enhance regulatory behaviour in classroom situations (Iiskala et al., 2004; Whitebread et al., 2007), but also facilitate the identification of regulatory behaviour by obliging the participants to externalize and articulate their ideas and conceptions to others (Iiskala et al., 2004). Additionally, when designing tasks to evoke socially-shared regulation, as discussed above, a key ingredient is the need for interdependence within the tasks (See *The social nature of self-regulation* section) and, given that musical play's inherent characteristics promote interdependence in the group (See *Self-regulation and musical play* section), every effort was made to accentuate and fully exploit this characteristic of musical play.

Coding framework

Children's regulatory behaviour during the musical play activities was assessed employing an observational framework for coding all regulatory behaviours identified during musical play.

The basis of the study's coding framework was the C.Ind.Le coding framework (Whitebread et al., 2009b); an internationally used and validated framework enabling the identification of behaviours indicative of metacognitive knowledge (of persons, tasks and strategies), of metacognitive regulation (planning, monitoring, control and evaluation) and emotional and motivational regulation (monitoring and control). Therefore, every identified regulatory behaviour was coded as to the *type of regulation* it involved (according to the C.Ind.Le framework, see Whitebread et al., 2009b). Indicative examples of how each type of regulatory behaviour manifested during musical play are presented in Appendix B.

Furthermore, respecting the distinctive character of musical play and in order to investigate the second hypothesis of this study, every identified regulatory behaviour was also coded as to its *social intentionality*. Each regulatory behaviour was coded as to whether it involved self-, co- or socially-shared regulation (adapted by Grau & Whitebread, 2012; Hadwin et al., 2010, 2011; Iiskala et al., 2004). Examples of how each type of social intentionality manifested in regulation during musical play are provided in Appendix C.

Finally, metacognitive regulation behaviours were also coded according to the *direction of the activity*. Each regulatory behaviour was coded as to whether it was directed towards fundamental, surface or group-work organisational aspects of the task (adapted from Grau and Whitebread, 2012). Regulatory behaviour directed towards fundamental aspects included behaviour that was necessary for the completion of the task. The code 'surface aspects' was assigned to behaviours regarding more contingent aspects of the task, which were mostly not essential in terms of the final quality of the work produced by the group. The code 'organisation of group-work' was assigned to metacognitive regulation behaviours that concerned coordinating the team work. Appendix D provides examples of regulatory behaviours under each of the three different directions of activity.

Data Analysis Strategy

First the data was prepared for the analysis on the Observer XT10 software. Only clear musical play events (children being actively and evidently engaged in musical play) underwent observational coding. A detailed *protocol analysis* procedure was followed; each regulatory behaviour was coded as a point event, assigned one of the nine main codes for type of regulatory behaviour, then defined as to its social intentionality and direction of activity. More than 10% of the data were coded by a second observer. Percentages of agreement for unitising the data (i.e. agreeing on which units of behaviour should be coded) were above 69%, a result which compares favourably with similar studies (Whitebread et al., 2009). Cohen's Kappa was calculated to establish whether the dually coded behaviours were assigned the same codes, and this demonstrated a high level of agreement with k=.89.

A data profile for each hypothesis was developed on the Observer XT and behaviour analysis took place, which allowed for extracting the counts and rates for the behaviours under investigation for statistical analysis. All the parametric assumptions were checked and indicated that the assumption of normality was tenable for most variables, with a few exceptions indicating possible, mostly marginal violations of normality. Due to this, and given the relatively small sample size of the study, it was decided that for each statistical test both the parametric and non-parametric alternatives were run. When their results were dissimilar or more than one indication of violations of assumptions was evident, a square root transformation was applied. Mixed-design ANOVAs (2x3 or 2x9) were run, since all the questions involved two independent variables. One independent variable was a repeated-measures variable (H1: type of regulatory behaviour, H2: type of social intentionality, H3: type of direction of activity) and the other one a between-group variable (age-groups). Within the larger study, all analyses explored the differences between both different regulatory behaviours and age-groups. However, for the purposes of this paper, only the former are presented. A Bonferroni correction was applied to all the post-hoc tests and all effects were reported to a level of significance correcting for the number of comparisons conducted.

Results

Hypothesis 1: Different Types of Regulatory Behaviours Appear at Different Rates During Children's Musical Play

During the clear musical play episodes (*M*=55.14 minutes per child, *SD*=10.28), a mean of 437.19 regulatory behaviours per child was coded (*SD*=166.66). This accounts for a mean rate of 7.83 regulatory behaviours per minute per child (*SD*=2.32).

The frequencies and relative percentages of the production of behaviours indicating the different areas of regulation in the C.Ind.Le Coding Framework during the five sessions of musical play are reported in Table 1. All the general areas of regulation in the C.Ind.Le coding framework (metacognitive knowledge, metacognitive regulation, emotional/ motivational regulation) were manifested during the five sessions of musical play. The same was the case for all the specific regulatory behaviours within these broader areas (knowledge of persons, tasks and strategies, planning, monitoring, control, evaluation, emotional/motivational monitoring and control).

Table 1
Distribution of children's regulatory behaviours during musical play to areas of regulatory behaviour and specific regulatory behaviours

Regulatory area Regulatory behaviour	Mean number of regulatory behaviours	Percentage of the total regulatory behaviours	Mean rate of regulatory behaviours per minute	SD of rates of regulatory behaviours
Metacognitive knowledge	10.36	2.37 %	0.18	0.11
Knowledge of persons	4.39	1.00 %	0.08	0.05
Knowledge of tasks	2.28	.52 %	0.04	0.04
Knowledge of strategies	3.69	.84 %	0.06	0.05
Metacognitive regulation	290.72	66.50 %	5.19	1.72
Planning	63.33	14.49 %	1.12	.39
Monitoring	156.75	35.85 %	2.81	0.92
Control	59.94	13.71 %	1.07	0.48
Evaluation	10.69	2.45 %	0.19	0.11
Emotional and motivational regulation	136.11	31.13 %	2.46	0.62
Emotional/motivational monitoring	121.81	27.86 %	2.20	0.55
Emotional/motivational control	14.31	3.27 %	0.26	0.14
Overall regulatory behaviours	437.19	100%	7.83	2.32

Distribution on the basis of the C.Ind.Le coding framework

It is also evident that different general and specific regulatory behaviours appeared at different rates during musical play. A mixed-design ANOVA indicated that there was a significant *main effect of the general area of regulation* on the rates of regulation shown by the child, $F(1.14, 38.70)=$

337.35, p<.001. This result indicates that, when all other variables are ignored, the rates differed according to the area of regulatory behaviour shown by the child. Because Mauchly's test indicated that the assumption of sphericity had been violated $\chi^2(2)=46.68$, p <.001, multivariate tests are also reported (ε = .57). These showed a statistically significant difference between the areas of regulatory behaviour during the episodes of musical play, V = 0.96, F (2,33) = 378.56, p < .001. Post-hoc tests corroborated the differences graphically presented in Figure 1. The rate of metacognitive regulation behaviours (M= 5.19) was significantly higher than the rate of emotional/motivational regulation behaviours (M= 2.46), p < .001, r= .91, which in turn was significantly higher than metacognitive knowledge behaviours (M = 0.18), p < .001, r= .98.

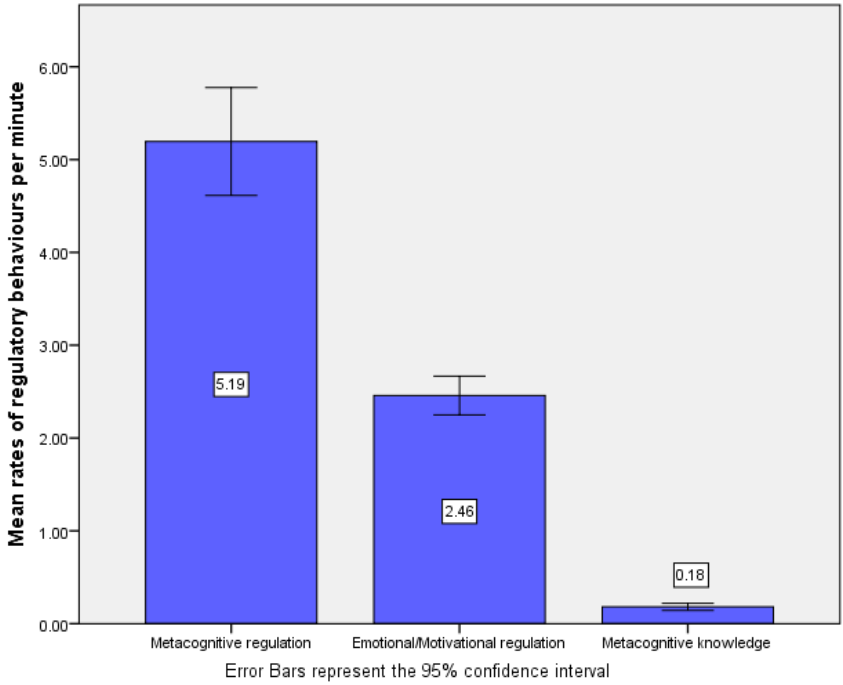

Figure 1. Bar graph of mean rates per area of regulatory behaviour during musical play.

Before running a mixed-design ANOVA on the specific types of regulation, a square root transformation was applied to all the variables since both the normality tests agreed that some of the variables had violated the assumption of normality. There was a *significant main effect of the specific type of regulatory behaviour* on the frequency of regulation shown by the child, $F(5.18, 175.96)= 809.84$, $p<.001$. Since Mauchly's test indicated that the assumption of sphericity had been violated $\chi^2(35)=65.30$, $p =.002$, multivariate tests are reported ($\varepsilon = .65$) which agreed with the above result, $V = 0.99$, $F(8, 27) = 730.66$, $p < .001$.

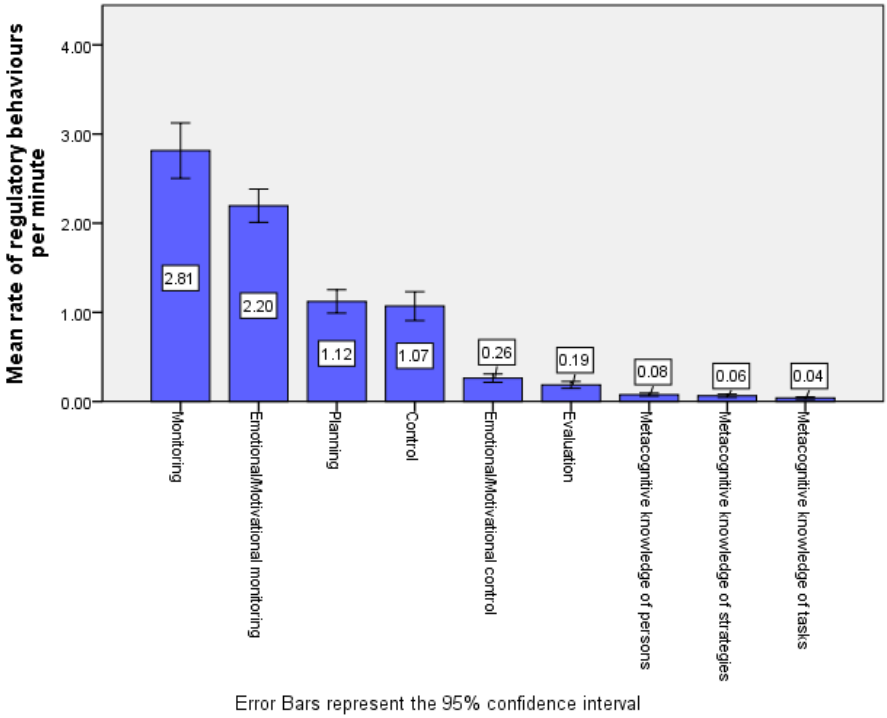

Figure 2. Bar graph of mean rates per specific regulatory behaviour during musical play

The post-hoc tests showed that almost all of the regulatory behaviours were significantly different to the remainder. Starting from the most frequently appearing (see Figure 2), the rate of monitoring behaviours (M= 2.81) was significantly higher than the rate of emotional/motivational monitoring behaviours (M=2.20, $p < .001$), which in turn was significantly higher than planning (M=1.12) and control (M=1.07, $p < .001$). Planning and control were not significantly different from each other (p = 1) and could therefore be considered as sharing the third position in frequency. They were, however, significantly higher than emotional/motivational control (M=0.26, $p < .001$), which in turn was significantly higher than evaluation (M=0.19, p = .04). Evaluation was significantly higher than metacognitive knowledge of persons (M=0.08) and strategies (M=0.06, $p < .001$ for both). Metacognitive knowledge of persons was significantly higher than the metacognitive knowledge of tasks (M=0.04, p =.04). Metacognitive knowledge of strategies was not significantly different from either metacognitive knowledge of persons (p= 1) or metacognitive knowledge of tasks (p = .40).

Therefore, monitoring behaviours were the prevalent regulatory behaviours during musical play, followed closely by emotional/motivational monitoring behaviours. Planning and control behaviours also appeared more frequently than the remainder of the regulatory behaviours.

Hypothesis 2: Regulatory Behaviours of Different Social intentionality (self-, co-, and socially-shared regulation) Appear at Different Rates during Children's Musical Play

During musical play the children demonstrated regulatory behaviours on all three different levels of social intentionality that is self-regulation, co-regulation and socially-shared regulation, all of which were observed at different rates.

There was *a significant main effect of the social intentionality of regulation* (self-regulation, co-regulation and socially-shared regulation) on the rate of regulatory behaviours shown by children, $F(1.82, 61.91) = 80.29$, $p < .001$. Mauchly's test indicated that the assumption of sphericity had been violated $\chi^2(2)=6.69$, p =.04, so multivariate tests are reported (ε = .85). This result indicates that the rates were different according to the social intentionality of

the regulatory behaviour shown by the child; a result corroborated by the multivariate tests' results, $V = .81$, $F(2, 33) = 68.74$, $p < .001$.

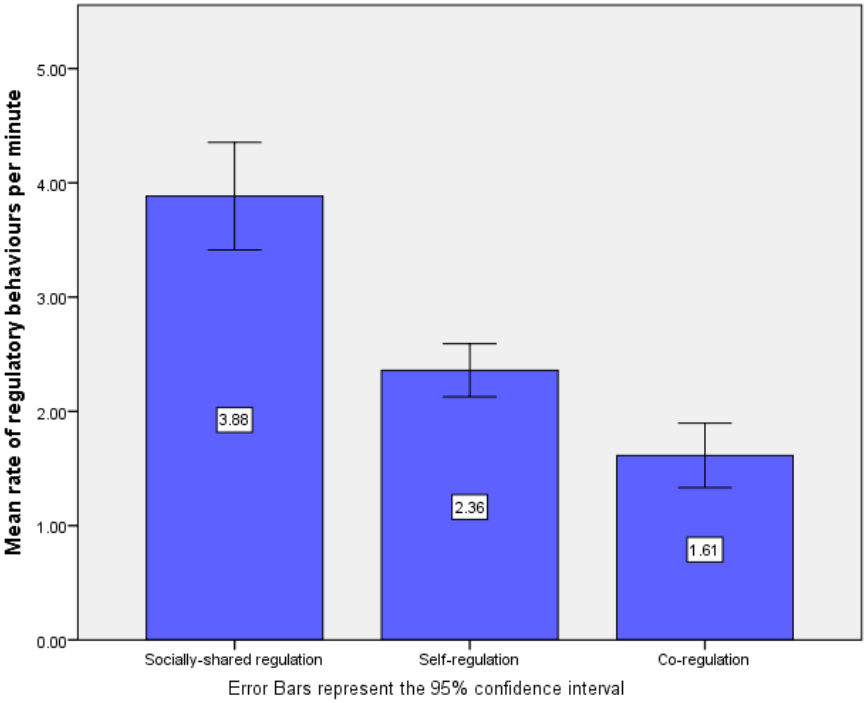

Figure 3. Bar graph of mean rates per different social intentionality during musical play.

According to post-hoc tests all the regulatory behaviours of different social intentionality appeared at significantly different rates from each other (Figure 3). Socially-shared regulation behaviours ($M = 3.88$, $SD = 1.39$) appeared at a significantly higher rate than self-regulatory behaviours ($M = 2.36$, $SD = 0.69$), $p < .001$, $r = .80$ which in turn appeared at a significantly higher rate than co-regulation ($M = 1.61$, $SD = 0.83$), $p < .001$, $r = .68$.

Hypothesis 3: Different Directions of Activity (Towards Fundamental, Surface Or Group Organisation Aspects) Appear at Differing Degrees during Children's Metacognitive Regulation Behaviours within Musical Play

Because this element was only coded for metacognitive regulation behaviours, it was decided to calculate the percentages of each direction of activity. Out of all the metacognitive regulation behaviours a child displayed during musical play, percentages were calculated relating to what proportion was fundamental to the task, directed to surface aspects of the task or related to organisation of group-work.

The *main effect of direction of activity was significant*. The differences between the percentages of metacognitive regulation behaviours according to the activity's direction (towards fundamental aspects, surface aspects or organisation of group-work) were significant, $F(1.25, 42.64) = 2860.82$, $p < .001$. Mauchly's test indicated that the assumption of sphericity had been violated $\chi^2(2)=29.82$, $p <.001$, and the multivariate tests reported ($\varepsilon = .63$) agree with the above-mentioned result, $V =.99$, $F (2, 33) = 4546.94$, $p < .001$.

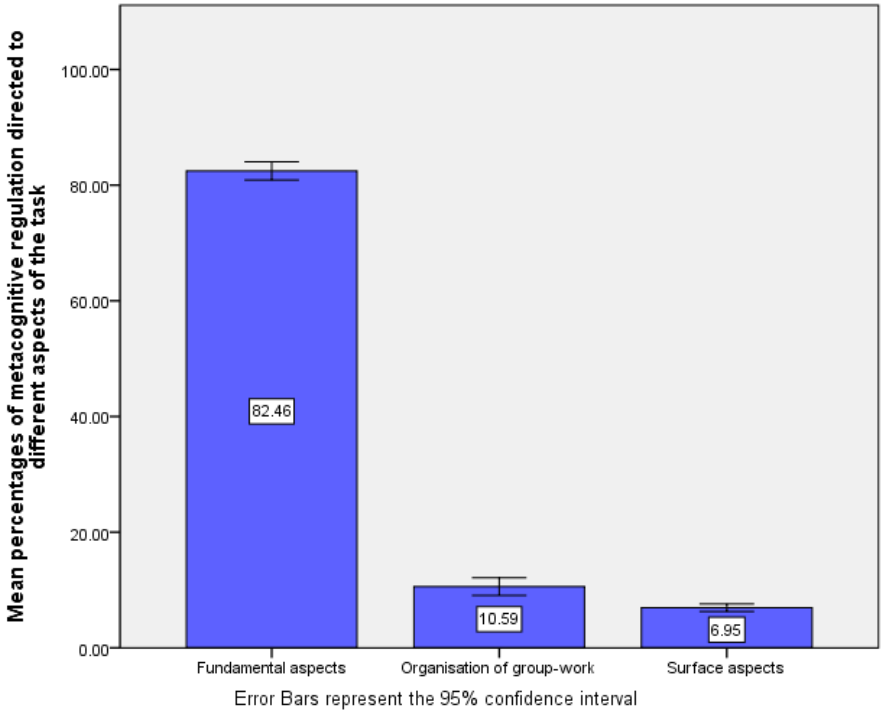

*Figure 4***.** Bar graph of mean percentages of metacognitive regulation behaviours per direction of activity.

According to post-hoc tests, all the percentages of metacognitive regulation behaviours with different directions of activity were significantly different between each other. As illustrated in Figure 4, the percentage of metacognitive regulation behaviours directed towards fundamental aspects of the tasks (M = 82.46%, SD= 4.64%) was significantly higher than the percentage of behaviours directed to organisation of group-work (M =10.59%, SD= 4.52%), p <.001, r = .99, which in turn was significantly higher than the percentage of behaviours directed towards surface aspects (M =6.95%, SD=1.93%), p=.001, r = .58.

Discussion

Limitations and Challenges

This study's pioneering nature deemed necessary an in-depth exploration, which consequently dictated the focus on a small sample. It must be acknowledged that because of the particularity of this study's sample and context, which was carefully selected to encourage externally prompted musical play and allow for the emergence of regulatory behaviours, there are problems of inbuilt bias. Thus the claims that can be made are of limited breadth. Furthermore, interaction effects with extraneous factors might have been missed, while it is impossible to determine whether the findings are specific to the group, the particular musical play tasks and contexts studied or if they can be generalised. Therefore the findings presented here can only be understood within the framework of the musical play tasks employed.

Additionally, the fact that the study was based on direct observations of the children's musical play raises the issue of the interpretation of observations, which needs to be made with great caution. This need, as argued by Whitebread and Pino-Pasternak (2013) and Volet and Summers (2013), becomes pertinent in the study of regulation and inter-personal regulation, where the researcher has to deal with intra-mental and socially-based phenomena. Given the socially-based kind of framework used in this study, a higher degree of inference and a shared cultural understanding was involved in the coding of the children's behaviour (Whitebread et al., 2009b). In order to address this issue, as argued by these commentators, the video-data was collected over a sufficiently long episode of activity and non-verbal evidence was used to provide contextual cues to support interpretation of behaviours. This had the implication that all the videos had to be watched in a diligent and exhaustive manner in order to identify explicit non-verbal cues, and this procedure was strengthened through the involvement of a second observer.

Taking the afore-mentioned limitations into consideration, what has been established in this study is presented in the following section.

Significance of the Results

The fundamental finding that the musical play activities afforded for regulatory behaviours to occur was particularly significant, since it

corroborates previous indications that musical play functions towards regulation in the same way as other types of play (Zachariou & Whitebread, 2015). It is noteworthy that the rate at which regulatory behaviours emerged during musical play is comparable to -and indeed higher than- the results from the CIndLe study (Whitebread et al., 2009), in which 3-5 year-olds showed a mean rate of 6.92 regulatory behaviours per minute. Even though the different nature of the CIndLe study (different age groups and different contexts) is explicitly acknowledged, this comparison was considered beneficial in order to situate the present study in a wider context. It could be speculated that it was the nature of musical play that encouraged more regulatory behaviours. This claim can only be very tentatively made and further research could usefully focus on providing the tools and data for a comparison between musical play and other types of play.

The predominance of metacognitive regulation behaviours compared to emotional/motivational regulation behaviours, which in turn were more frequent than metacognitive knowledge behaviours is also a very significant result. In particular, it was striking that in musical play emotional/motivational regulation behaviours were more frequent than metacognitive knowledge behaviours, in comparison to what happens in playful situations in general, where metacognitive regulation seems to be the most frequently coded type of regulation, followed by metacognitive knowledge and with emotional/motivational regulation appearing the least often (Whitebread et al. 2009a). This serves as an initial hint that musical play has a particular relationship with emotional/motivational regulation; a finding which also calls for further investigation. Additionally, the prevalence of monitoring, planning and control behaviours in musical play confirms previous findings (Zachariou & Whitebread, 2015) that musical play acts in line with playful situations in general (Whitebread et al, 2009b). Most importantly, the predominance of emotional/motivational monitoring (being the second most frequently coded behaviour following monitoring) was a surprising result, yet in agreement with the previously discussed findings which comprise initial indications that emotional/ motivational aspects of regulation might have a significant role to play in the link between regulation and musical play.

One of the most ground-breaking results of this study lies in the finding that the musical play activities predominantly afforded for high rates of

socially-shared regulation compared to self-regulation and co-regulation. The significance of these results arises when compared with previous studies reporting that self-regulation was the most frequently coded type of social intentionality (Whitebread et al., 2007) and noting a relative absence of high-level socially-shared regulatory behaviours in school collaborative environments (Hurme & Jarvela, 2005). It is, thus, intriguing that during musical play socially-shared regulation behaviours were the most frequently observed, in contrast to what has been reported in research on other group learning activities.

The finding that opportunities to share regulation between group members (i.e. engaging in socially-shared regulation) were observed most frequently could be aligned with the findings by Rabinowitch, Cross and Burnard (2013) that music promotes social-emotional capacities. This could be attributed to the inherently social nature of musical play (e.g. Marsh & Young, 2007; Pound, 2010). This social nature promotes a sense of joint action (Rabinowitch et al, 2013), strengthens the sense of acting together in unity (Kirschner & Tomasello, 2010) and affords interdependency and intersubjectivity (Bannan & Woodward, 2009; Rabinowitch et al., 2012, 2013), while at the same time prompting dynamic, coordinated and interdependent work. All of these are also characteristics of tasks that provide greater affordance for shared regulation (e.g. Perry & Winne, 2013; Winne et al., 2013). Given these findings, it can therefore be tentatively argued that the link this study attempted to make between the concepts of regulation and musical play which both appear to have their origins in intersubjectivity (Brinck & Liljenfors, 2013; Trevarthen & Aitken, 2001), was indeed a successful one. However, given the limitations of this single study, it cannot be plausibly established that musical play in general mainly encourages socially-shared regulation, until further research corroborates these results.

Finally, the finding that during musical play significantly higher percentages of metacognitive regulation behaviours were directed towards fundamental aspects of the tasks instead of surface or organisational aspects acquires great significance when examined in light of previous research linking this to higher quality regulation. During collaborative mathematics (Rogat & Linnenbrink-Garcia, 2011) and science tasks (Grau & Whitebread, 2012) low quality regulation and directing activity towards surface aspects

(respectively) were the norm. The comparison with these results strengthens the case in favour of the musical play activities being engaging, motivating, successful in stimulating genuinely goal-directed regulation and affording regulatory behaviours. It is thus made evident that the present study's interest in investigating the quality differences in regulation was of added value, since the findings made it possible to posit that musical play may afford for higher quality of regulation.

Implications

The establishment that these musical play activities afforded for regulatory behaviours could have both theoretical and practical significance. From a theoretical point of view, it provides further support to the theories advocating for a link between play and regulation, while expanding the literature on the range of activities affording for regulation, and revealing a new route through which musicality is linked to cognitive benefits.

This, in turn, could have practical implications for education since it could affect the strategies adopted in schools to encourage regulatory development. Since metacognitive abilities are considered teachable (Dignath et al., 2008; Hattie et al, 1996) and teaching strategies fostering metacognition and regulation have been shown to be the most effective in the improvement of learning (Higgins, 2013), musical play could be incorporated in the curriculum as an integral part of these strategies.

Furthermore, due to its inherent characteristic of interdependency, musical play is also a context positively associated with genuine group-work, which requires a set of skills currently receiving increasing attention in the school context (Organisation for Economic Co-operation and Development, 2013). The added value of the present study lies in the fact that during musical play socially-shared regulation appears to be the most frequently coded type of social intentionality (Hypothesis 2). Thus, musical play could provide a platform from where to enhance these highly valued collaborative problem-solving, socially-shared regulation abilities.

As has been previously suggested in the literature, it is therefore important that teachers are informed of this evidence (Whitebread, 2013) and enabled to embed these practices in their classrooms. In doing so, the evidence from this study, in light of other studies examining teaching practices that afford for

regulation, suggests that they could have a greatly enhanced impact on children's academic and personal development.

Conclusion

The current paper introduces musical play as a new context affording for regulation. In line with other contexts, musical play mainly affords for monitoring behaviours, but also fosters emotional/motivational monitoring behaviours. Importantly, in marked contrast to other contexts, musical play - potentially due to its inherent intersubjectivity- appears to be a fertile context for socially-shared regulation, and for regulatory activity directed towards fundamental aspects of the tasks. The results highlight the importance of a detailed, multi-dimensional approach in the study of different aspects of regulatory behaviours, which although labour-intensive, provided very useful insights into the affordances of musical play. These results and approach can be considered crucial to informing self-regulation research and practice and establishing musical play's importance in this regard.

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Notes

[1] The term 'self-regulation' is employed in this Introduction to reflect the literature's traditional focus on self-regulation and to allow for an accurate presentation of the concept's definition as coined by Vygotsky.

[2] From here onwards, the terms 'regulation' or 'regulatory behaviour' are used as umbrella terms when the authors wish to refer to all types of social intentionality and include self-, co- and socially-shared regulation. The terms self-, co-, and socially-shared regulation are used when the authors wish to differentiate according to social intentionality.

[3] The CHILD achieves high levels of internal consistency amongst its 22 statements (Cronbach alpha=.97), and provides high inter-rater reliability (level of agreement= 85.9%) (Whitebread et al., 2009b)

References

Bannan, N., & Woodward, S. (2009). Spontaneity in the musicality and music learning in children. In S. Malloch & C. Trevarthen (Eds.), *Communicative Musicality. Exploring the basis of human companionship* (pp. 465–494). Oxford: Oxford University Press.

Barrett, M. S. (2009). Sounding lives in and through music a narrative inquiry of the 'everyday'musical engagement of a young child. *Journal of Early Childhood Research*, *7*(2), 115–134. doi:10.1177/1476718X09102645

Baumeister, R., & Vohs, K. (Eds.). (2004). *Handbook of self-regulation*. New York: Guilford Press.

Berk, L. E., Mann, T., & Ogan, A. (2006). Make-believe play: Wellspring for Development of Self-Regulation. In D. Singer, R. Golinkoff, & K. Hirsh-Pasek (Eds.), *Play=Learning. How play motivates and enhances children's cognitive and social-emotional growth* (pp. 74–100). USA: Oxford University Press.

Boekaerts, M., & Niemivirta, M. (2000). Self-regulated learning: Finding a balance between learning goals and ego-protective goals. In M. Boekaerts, P. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 417–450). San Diego, CA: Academic.

Brinck, I., & Liljenfors, R. (2013). The developmental origin of metacognition. *Infant and Child Development*, *22*(1), 85–101. doi:10.1002/icd.1749

Bronson, M. (2000). *Self-regulation in early childhood: Nature and nurture*. New York: Guilford Press.

Bruner, J. S. (1972). Nature and uses of immaturity. *American Psychologist*, *27*(8), 687-708.

Coltman, P., Warwick, J., Wilmott, J., Pino-Pasternak, D., & Whitebread, D. (2013). Teachers co-constructing pedagogical practices to support children's exploratory talk and self-regulation: the Children Articulating Thinking (ChAT) project. *Self-Regulation and Dialogue*

in Primary Classrooms, Monograph Series II: Psychological Aspects of Education- Current Trends (10), 127–146.

Custodero, L. (2009). Intimacy and reciprocity in improvisatory musical performance: Pedagogical lessons from adult artists and young children. In S. Malloch & C. Trevarthen (Eds.), *Communicative Musicality. Exploring the basis of human companionship* (pp. 513–529). Oxford: Oxford University Press.

Dignath, C., Buettner, G., & Langfeldt, H.P. (2008). How can primary school students learn self-regulated learning strategies most effectively? A meta-analysis on self-regulation training programmes. *Educational Research Review*, *3*(2), 101–129. doi:10.1016/j.edurev.2008.02.003

Fantuzzo, J., Sekino, Y., & Cohen, H. L. (2004). An examination of the contributions of interactive peer play to salient classroom competencies for urban head start children. *Psychology in the Schools*, *41*(3), 323–336. doi:10.1002/pits.10162

Galyer, K. T., & Evans, I. M. (2001). Pretend play and the development of emotion regulation in preschool children. *Early Child Development and Care*, *166*(1), 93–108. doi:10.1080/0300443011660108

Golinkoff, R. ., Hirsh-Pasek, K., & Singer, D. (2008). Why Play = Learning: A challenge for parents and educators. In D. Singer, R. Golinkoff, & K. Hirsh-Pasek (Eds.), *Play = Learning. How play motivates and enhances children's cognitive and social-emotional growth* (pp. 3–15). New York: Oxford University Press.

Grau, V., & Whitebread, D. (2012). Self and social regulation of learning during collaborative activities in the classroom: The interplay of individual and group cognition. *Learning and Instruction*, *22*(6), 401–412. doi: 10.1016/j.learninstruc.2012.03.003

Hacker, D., Dunlosky, J., & Graesser, A. (Eds.). (1998). *Metacognition in educational theory and practice*. London: Lawrence Erlbaum.

Hadwin, A. F., Järvelä, S., & Miller, M. (2011). Self-regulated, co-regulated, and socially shared regulation of learning. In B.J. Zimmerman, & D.H.Schunk (Eds.), *Handbook of Self-Regulation of Learning and Performance* (pp. 65-86). New York: Routledge.

Hadwin, A. F., Oshige, M., Gress, C. L., & Winne, P. H. (2010). Innovative ways for using gStudy to orchestrate and research social aspects of self-regulated learning. *Computers in Human Behaviour*, *26*(5), 794–805. doi:10.1016/j.chb.2007.06.007

Hallam, S. (2007). Musicality. In G. McPherson (Ed.), *The child as musician: A handbook of musical development.* (pp. 93–110). USA: Oxford University Press.

Harwood, E. (1998). Music learning in context: A playground tale. *Research Studies in Music Education*, *11*(1), 52–60. doi:10.1177/1321103X9801100106

Hattie, J., Biggs, J., & Purdie, N. (1996). Effects of learning skills interventions on student learning: A meta-analysis. *Review of Educational Research*, *66*(2), 99–136. doi:10.3102/00346543066002099

Higgins, S. (2013). Self-regulation and learning : evidence from meta-analysis and from classrooms. *The British Journal of Educational Psychology*, *Monograph Series II: Psychological Aspects of Education- Current Trends*, 111–126.

Hirsh-Pasek, K., Golinkoff, R. ., Berk, L. E., & Singer, D. (2008). *A mandate for playful learning in preschool: presenting the evidence*. New York: Oxford University Press.

Hurme, T.R., & Järvelä, S. (2005). Students' activity in computer-supported collaborative problem solving in mathematics. *International Journal of Computers for Mathematical Learning*, *10*(1), 49–73. doi:10.1007/s10758-005-4579-3

Iiskala, T., Vauras, M., & Lehtinen, E. (2004). Socially shared metacognition in peer-learning? *Hellenic Journal of Psychology*, *1*, 147–178.

Janssen, J., Erkens, G., Kirschner, P. A., & Kanselaar, G. (2012). Task-related and social regulation during online collaborative learning. *Metacognition and Learning*, *7*(1), 25–43.

Järvelä, S., & Hadwin, A. F. (2013). New frontiers: Regulating learning in CSCL. *Educational Psychologist*, *48*(1), 25–39. doi:10.1080/00461520.2012.748006

Järvelä, S., Järvenoja, H., Malmberg, J., & Hadwin, A. F. (2013). Exploring Socially Shared Regulation in the Context of Collaboration. *Journal of Cognitive Education and Psychology*, *12*(3), 267–286.

Kirschner, S., & Tomasello, M. (2010). Joint music making promotes prosocial behaviour in 4-year-old children. *Evolution and Human Behaviour*, *31*(5), 354–364. doi:10.1016/j.evolhumbehav.2010.04.004

Lew, J. C.T., & Campbell, P. S. (2005). Children's Natural and Necessary Musical Play: Global Contexts, Local Applications. *Music Educators Journal*, *91*(5), 57-63.

Marsh, K. (2008). *The musical playground: global tradition and change in children's songs and games*. Oxford: Oxford University Press.

Marsh, K., & Young, S. (2007). Musical Play. In G. McPherson (Ed.), *The child as musician: A handbook of musical development.* (pp.289-310). USA: Oxford University Press.

McCaslin, M., & Good, T. (1996). The Informal Curriculum. In D. Berliner & R. Calfee (Eds.), *Handbook of educational psychology* (pp. 622–670). USA: Macmillan.

McClelland, M. M., & Tominey, S. L. (2011). Introduction to the special issue on self-regulation in early childhood. *Early Education & Development*, *22*(3), 355–359. doi:10.1080/10409289.2011.574265

Organisation for Economic Co-operation and Development. (2013, March). PISA 2015: Draft collaborative problem solving framework. Retrieved from http://www.oecd.org/pisa/pisaproducts/DraftPISA2015CollaborativeProblemSolvingFramework.pdf

Papousek, H. (1996). Musicality in infancy research: biological and cultural origins of early musicality. In I. Deliege & J. Sloboda (Eds.), *Musical beginnings: Origins and development of musical competence* (pp. 37–55). Oxford: Oxford University Press.

Perry, N. E., & Winne, P. H. (2013). Tracing students' regulation of learning in complex collaborative tasks. In S. Volet & M. Vauras (Eds.), *New perspectives on learning and instruction. Interpersonal regulation of learning and motivation* (pp. 45–66). USA: Routledge.

Pond, D. (1980). The Young Child's Playful World of Sound. *Music Educators Journal*, *66*(7), 39–41.

Pound, L. (2010). Playing music. In J. Moyles (Ed.), *The excellence of play* (pp. 139–153). Maidenhead: Open University Press.

Rabinowitch, T.C., Cross, I., & Burnard, P. (2012). Music group interaction, intersubjectivity and merged subjectivity. In D. Reynolds & M. Reason (Eds.), *Kinesthetic empathy in creative and cultural prectives* (pp. 109–120). Bristol, UK: Intellect.

Rabinowitch, T.C., Cross, I., & Burnard, P. (2013). Long-term musical group interaction has a positive influence on empathy in children. *Psychology of Music*, *41*(4), 484–498. doi:10.1177/0305735612440609

Rodríguez, C., & Palacios, P. (2007). Do private gestures have a self-regulatory function? A case study. *Infant Behaviour and Development*, *30*(2), 180–194. doi:10.1016/j.infbeh.2007.02.010

Rogat, T. K., & Linnenbrink-Garcia, L. (2011). Socially shared regulation in collaborative groups: An analysis of the interplay between quality of social regulation and group processes. *Cognition and Instruction*, *29*(4), 375–415. doi:10.1080/07370008.2011.607930

Tarnowski, S. M. (1999). Musical play and young children: A music teacher can enhance a child's learning and development by encouraging musical play activities. *Music Educators Journal*, *86*(1), 26–29.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling a typology with examples. *Journal of Mixed Methods Research*, *1*(1), 77–100. doi:10.1177/2345678906292430

Trevarthen, C. (2000). Musicality and the intrinsic motive pulse: evidence from human psychobiology and infant communication. *Musicae Scientiae*, *3*(1), 155–215. doi:10.1177/10298649000030S109

Trevarthen, C. (2012). Communicative musicality: The human impulse to create and share music. In D. Hargreaves, D. Miell, & R. MacDonald (Eds.), *Musical imaginations. Multidisciplinary perspectives on creativity, performance and perception* (pp. 259–284). New York: Oxford University Press.

Trevarthen, C., & Aitken, K. J. (2001). Infant intersubjectivity: Research, theory, and clinical applications. *Journal of Child Psychology and Psychiatry*, *42*(1), 3–48. doi:10.1017/S0021963001006552

Vallotton, C. D. (2008). Signs of emotion: What can preverbal children "say" about internal states? *Infant Mental Health Journal*, *29*(3), 234–258. doi:10.1002/imhj.20175

Veenman, M. V. (2011). Learning to self-monitor and self-regulate. In R. Mayer & P. Alexander (Eds.), *Handbook of research on learning and instruction* (pp. 197–218). New York: Routledge.

Veenman, M. V., Van Hout-Wolters, B. H., & Afflerbach, P. (2006). Metacognition and learning: Conceptual and methodological considerations. *Metacognition and Learning*, *1*(1), 3–14. doi:10.1007/s11409-006-6893-0

Volet, S., & Summers, M. (2013). Interpersonal regulation in collaborative learning activities. Reflections on emerging research methodologies. In S. Volet & M. Vauras (Eds.), *New perspectives on learning and instruction. Interpersonal regulation of learning and motivation* (pp. 204–217). USA: Routledge.

Volet, S., Vauras, M., & Salonen, P. (2009). Self-and social regulation in learning contexts: An integrative perspective. *Educational Psychologist*, *44*(4), 215–226. doi:10.1080/00461520903213584

Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Cambridge, MA: Harvard University Press.

Whitebread, D. (2013). Self-regulation in young children: its characteristics and the role of communication and language in its early development. *The British Journal of Educational Psychology*, *Monograph Series II: Psychological Aspects of Education- Current Trends*(10), 25–44.

Whitebread, D., Almeqdad, Q., Bryce, D., Demetriou, D., Grau, V., & Sangster, C. (2010). Metacognition in Young Children: Current Methodological and Theoretical Developments. In A. Efklides & P. Misailidi (Eds.), *Trends and Prospects in Metacognition Research* (pp. 233–258). New York: Springer.

Whitebread, D., Bingham, S., Grau, V., Pino Pasternak, D., & Sangster, C. (2007). Development of metacognition and self-regulated learning in young children: Role of collaborative and peer-assisted learning. *Journal of Cognitive Education and Psychology*, *6*(3), 433–455. doi:10.1891/194589507787382043

Whitebread, D., Coltman, P., Jameson, H., & Lander, R. (2009a). Play, cognition and self-regulation: What exactly are children learning when they learn through play? *Educational and Child Psychology*, *26*(2), 40–52.

Whitebread, D., Coltman, P., Pasternak, D. P., Sangster, C., Grau, V., Bingham, S., Almeqdad, Q., Demetriou, D. (2009b). The development of two observational tools for assessing metacognition and self-regulated learning in young children. *Metacognition and Learning*, *4*(1), 63–85. doi:10.1007/s11409-008-9033-1

Whitebread, D., & Pino-Pasternak, D. (2013). Video analysis of self-regulated learning in social and naturalistic contexts. The case of preschool and primary school children. In S. Volet & M. Vauras (Eds.), *New perspectives on learning and instruction. Interpersonal Regulation of Learning and Motivation* (pp. 14–44). USA: Routledge.

Winne, P. H., Hadwin, A. F., & Perry, N. E. (2013). Metacognition and Computer-Supported Collaborative Learning. In C. Hmelo-Silver, C. Chinn, C. K. Chan, & A. O'Donnell (Eds.), *The International Handbook of Collaborative Learning* (pp. 462–479). New York: Taylor & Francis.

Winsler, A., Ducenne, L., & Koury, A. (2011). Singing one's way to self-regulation: The role of early music and movement curricula and private speech. *Early Education and Development*, *22*(2), 274–304. doi:10.1080/10409280903585739

Young, S. (2003). *Music with the under-fours*. London: RoutledgeFalmer.

Young, S. (2004). The interpersonal dimension: a potential source of musical creativity for young children? *Musicae Scientiae*, *7*(1 suppl), 175–191. doi:10.1177/10298649040070S109

Young, S. (2005). Adults and young children communicating musically. In D. Hargreaves, D. Miell, & D. MacDonald (Eds.), *Musical Communication* (pp. 281–299). Oxford: Oxford University Press.

Zachariou, A., & Whitebread, D. (2015). Musical play and self-regulation: Does musical play allow for the emergence of self-regulatory behaviours? *International Journal of Play, 4*(2), 116-135. doi:10.1080/21594937.2015.1060572

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, *81*(3).

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Appendices

Appendix A: Examples of musical play activities

Type of musical play	**Activity** The children were encouraged to:
Movement play	Dance to a musical piece, firstly on their own and then in groups of three.
Hand-clapping games	Play hand-clapping games they already knew, in pairs. Learn a rhyme involving hand-clapping, to play with this rhyme and find other ways of hand-clapping in pairs.
Circle games	Learn a game played in a circle while holding hands. Then play other games they knew that are played in a circle (in groups of seven).
Instrumental play	Create music inspired by an image (that had been introduced to them) on their own and then in groups of three.
Singing play	Think of a phrase (having an image as the incentive) and 'say it till a song comes', firstly individually and then playing in their groups to create their own songs.

Appendix B: Examples of different types of regulatory behaviour observed during musical play

General areas and specific types of regulation	**Examples**
Metacognitive knowledge	
Knowledge of persons	*I don't want to sing; I am not good at it* *Do you know why (I am doing this so well)? I have been practising!*
Knowledge of tasks	Explains what the task lacks in comparison to other ideas. *[to peer] Ah, it is too difficult!* Identifies similarities to hand-clapping games they already know [Hand-clapping]
Knowledge of strategies	Explains to the rest of the group the game. *You will be closing the circle when I enter the circle and you will be singing this* [Circle games]
Metacognitive regulation	
Planning	Child tries to get the team ready and at the correct position before the start of play. Directs who plays what and when. Gets his peer's hands ready in the correct position before they start playing [Hand-clapping].
Monitoring	Checking around their peers to make sure they are doing it correctly. Commenting on the song. Monitoring their play while on task
Control	Guides another child by demonstration of how the instrument should be used Nods to a peer to point out it is her turn to move [Movement play]. *'One, two, three'*-implementing a known strategy to a new situation
Evaluation	*We've made a song! It's perfect!* [Singing play] *This dance (we are creating) fits really well with the song.*[Movement play]
Emotional and motivational regulation	
Emotional/motivational monitoring	*I don't want to sing. [Singing play]* *Smiling, laughing, pulling a long face. Looking excited.*
Emotional/motivational control	*Nods her head encouragingly to make a peer dance [Circle games].* *His peer is not paying attention to him but he still persists trying to get his hands in the correct position for the start of the game [hand-clapping games].*

Examples coded according to the C.Ind.Le coding framewor

Appendix C: Examples of regulatory behaviours of different social intentionality

Social Intentionality	**Example**
Self-regulation	Child realises that he made a mistake and played his instrument at the wrong moment. Immediately self-corrects and stops. Following moving on the musical piece in the way he had suggested, stops and announces 'I am bored of this one (this pattern of moves)'
Co-regulation	Closely monitoring another child's effort and nodding her head in approval. One of the group members misbehaves. Another child raises the tone of her voice and touches him on the knee, saying in a slightly annoyed tone: 'Hey, come on' (Behave!).
Socially-shared regulation	All children in the group are discussing their ideas for the lyrics of their song together, with everyone suggesting an idea.

Appendix D: Examples of regulatory behaviours having different directions of activity

Direction of activity	**Example**
Fundamental aspects	Discussing about the moves they will do on the music. [Movement play].
	Child gets peer's hands ready before the start of the game [Hand-clapping].
	Checking if the peers in the circle are doing the moves correctly [Circle games].
	Discussing about the lyrics of their song or its rhythm [Singing play].
Surface aspects	Getting the 'stage' ready for their dance [Movement play].
	Discussing about particular aspects of the task, like which hand one uses to show they have won [Hand-clapping games].
	Talking about the finger puppets they are holding [Singing play].
Organisation of group-work	Giving signals to each other on when to start moving [Movement play].
	Saying 'first you will play, then you' [Instrumental play].

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Young Children about School: Whose Voices Do We Hear?

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Abstract

School is one of the important educational practices, in which children are actively involved. When we want to contribute to the development of young children's voices, we need deeper insight into the way children act as they do. Therefore, we have to distinguish how young children's voices are composed, as we proclaim that all voices are essentially polyphonic. We found children's expressions which were not corresponding with their own teachers' and parents' expressions. Many of the presented examples of non-corresponding expressions by the children, refer to situations in which resistance, one of the identifiers of voice, is shown. This article is part of a larger study we conducted on young children's voices. In our research we want to explore the content of young children's voices and the meaning they attribute to the educational contexts they are involved in. We conducted five case studies with young children, aged 5-6, in school. We have analyzed their expressions and presented our findings earlier. In this phase of our research project we are looking for possible correspondences between the children's expressions and the expressions of their teachers and parents.

Keywords: Young children, educational contexts, voice composition, agency

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La Voz de los Niños Pequeños sobre la Escuela: ¿A Quién Escuchamos?

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Resumen

La escuela es una de las prácticas educativas importantes, en la que los niños y niñas participan activamente. Cuando queremos contribuir al desarrollo de las voces de los niños pequeños, necesitamos una visión más profunda de la forma en que los niños y las niñas actúan como lo hacen. Por lo tanto, debemos distinguir cómo se componen las voces de los niños pequeños, ya que proclamamos que todas las voces son esencialmente polifónicas. Encontramos expresiones infantiles que no se correspondían con las expresiones de sus propios maestros y padres. Muchos de los ejemplos presentados de expresiones no correspondientes por los niños, se refieren a situaciones en las que se muestra la resistencia, uno de los identificadores de voz. Este artículo es parte de un estudio más amplio que realizamos sobre las voces de los niños pequeños. En nuestra investigación, queremos explorar el contenido de las voces de los niños pequeños y el significado que atribuyen a los contextos educativos en los que están involucrados. Llevamos a cabo cinco estudios de caso con niños pequeños, de entre 5 y 6 años, en la escuela. Hemos analizado sus expresiones y presentado nuestros hallazgos. En esta fase de nuestro proyecto de investigación, buscamos posibles correspondencias entre las expresiones de los niños y las expresiones de sus maestros y padres.

Palabras clave: Niños pequeños, contextos educativos, composición de voz, agencia

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Our western society is developing more and more towards a knowledge society. Participants need a certain degree of moral and intellectual autonomy to act adequately in such a society (Hargreaves, 2003). An appropriate question for teachers and other educators is then how children could be supported to their best interest to become autonomous and responsible participants in society.

School is one of the important educational practices in modern society, in which children are actively involved. It contributes to children's socialization and the formation of their abilities to take part as autonomous and critical agents in the cultural practices they are engaged in, or will presumably be engaged in in the future. Agency refers to this critical capacity of persons to act upon the world, even to remake it to some extent, and do so purposely and reflectively in interaction with others (Holland, Lachicotte, Skinner & Cain, 1998, p. 42). In practicing agency we see how persons respond in characteristic ways to the circumstances, relations and cultures in the given situation. Children's agency refers to children's possibilities and willingness to control their own actions, but also to change it and, when they feel the need to it, to resist the socio-cultural context they are involved in. An adult's readiness to see children as competent to do so, is an important condition for the actual manifestation of children's agency (Meadows, 2010; Rainio, 2010).

As Holland et al. (1998) have pointed out, a person's agency is closely related to a person's identity: a situated manifestation of persons' conceptions about him- or herself. Agency, and identity for that matter, can particularly be observed in a person's way of expressing or voicing his or her perspectives – consciously, objectified and purposeful – on the given situation, and the socio-cultural environment in general, in which this situation is embedded (Eteläpelto, Vähäsantanen, Hökka & Palomieni, 2013; Wertsch, 2002). Moreover, a person's expressions offer opportunities for others to respond and change these expressions through dialogues, and hence influence the content of a person's voice, and ways of acting upon the world (Bakhtin, 1981).

Wertsch (1991, p. 90) argues that in a person's voice, voices of others resound as well. Moreover, as one's voice comes into contact with other voices, the meaning of what is said may change under the influence of those

other voices, and so voices become more and more multi-voiced. Accordingly, voices are essentially polyphonic. Consequently, it is often unclear whose voices we actually hear when young children express their perspectives. Hence, if we want to foster their development towards autonomous and responsible agency, we need a deeper understanding of the polyphony of their voices.

When teachers want to contribute to the development of young children's agency, we need deeper insight into the way children act as they do in specific situations, and into their motives for acting. Given the dominant position of school in most children's lives, we need most of all insight into the content of their voices with respect to their school environments. As we proclaim that all voices are in essential polyphonic, we have to distinguish how young children's voices are composed. We have to distinguish the way in which the voices of others resound in children's voices first, before we are able to gain insight into their autonomous and responsible agency. Therefore, in our research we raise the following questions: (1) Which correspondences can be discovered in the voices of proximal others (parents, teachers, peers) and an individual child's voice? (2) Which expressions can be found that do not correspond to proximal others? We focus on children, aged 5-6, in school.

This article is part of a larger study we conducted on young children's voices. In our research project we want to explore the content of young children's voices and the meaning they attribute to the educational contexts they are involved in. We started our research with a literature study on young children's voices. Then we conducted a first case study to test our methods for data collection and analysis on researching attribution of meaning by young children in school. We have described how we have dealt with the issues of validity and reliability in a former part of our research. We carried out four other case studies and with the help of our coding system we described the expressed contents of these children's voices. Based on these descriptions we were able to present findings about the meanings the case study children ascribe to their education. At the same time, when children express their notions about the education they receive, the notions of important others, like teachers and parents, probably resound in children's expressions too.

In this article we present the results of our research on the possible resounding of parents' and teachers' voices in children's voices. First, we describe our theoretical and conceptual framework. Secondly, we present our coding system, developed for the classification and analysis of children's and adult's expressions. We describe how we analyzed the contents of the interviews which we have held with the case study children's teachers and parents. Then we present a taxonomy we have created for distinguishing and interpreting correspondences in the children's and adults' expressions, and the results we have found. Finally, we describe the answers on our research questions and we discuss our findings

Theoretical Framework

Like Bronfenbrenner (1979) and Hedegaard (2008a), we consider young children as active participants in dynamic micro-systems, like educational practices as well as their families. In these systems children encounter different kinds of related perspectives. First, the *societal* perspective related to the level of society with its own cultural traditions and value positions. Secondly, the *institutional* perspective related to the educational level with teachers and peers, and related to the level of family life with parents and other family members. By participating in different micro-systems in which children encounter different perspectives, they gradually change their motives and their competences. Subject to all these influences, children develop their perspective at an *individual* level, influenced by societal and institutional perspectives. Inversely they may contribute to societal and institutional perspectives in their turn.

In Figure 1 we schematically summarize our conceptual framework on research as follows:

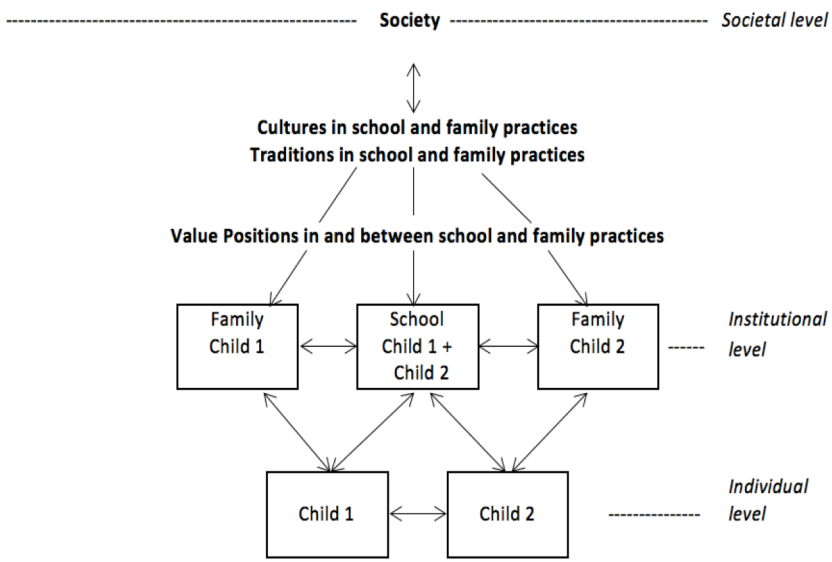

Figure 1 Children's Participation in Different Microsystems (Family and School) Encountering and Integrating Different Perspectives (Societal, Institutional, and Individual)

Figure 1 (based on Hedegaard, 2008a) positions our case-studies in a system of the dynamic relationships between an individual child and an institution as family (in our case-studies: parents) on the one hand, and an institution like school (in our case-studies: teachers) on the other hand within society with its cultures and value positions. The connecting lines in Figure 1 show the reciprocal influence, between the individual children and the institutions (family and school). They also show the reciprocal influences between the representatives in the different institutions (parents and teachers) at the institutional level. Finally, the lines show peers influencing each other at an individual level as well. This framework of children's development of perspectives is a directive of our research on the content of

young children's voice in educational practices, and how these voices are composed.

Cultures and traditions are reflected in a person's meaning making, or voice. Wertsch (2002) refers to narratives as cultural tools. It is impossible to express narratives without introducing other voices along with one's own voice to produce coherent meanings on a certain topic. Consequently, practicing agency as consciously voicing one's purposeful perspectives on a given situation within a socio-cultural environment, has to be considered as a form of bounded agency. It refers to the way people actively try to control their lives, and cope with difficulties resulting from "the complex interplay of e.g. cultural contexts, institutional systems, people's own attitudes, and actions in the labor and education markets, and associated support systems." (Eteläpelto et al., 2013, p. 58). People reflect their perspectives on given situations in the narratives they tell. By listening to their narratives it is possible to gain insight in their meaning making on and how they practice agency in certain situations. In order to answer our research questions, it was necessary to analyze children's as well as adult's narratives about school environments. By comparing those narratives of children and adults, we aimed to trace voices of those proximal adults resounding in a child's voice.

Method

Our research method consisted of a qualitative-interpretative approach in a flexible design. For triangulation reasons, we used multiple sources of evidence in our five case-studies (Robson, 2011; Tertoolen, van Oers, Geldens & Popeijus, 2012; Yin, 2009). We considered each of our cases as a separate study, enabling us to investigate the dynamics of the specific context in which each child, aged 5-6, is involved.

In choosing our case-studies we had to make sure that they would open a window on the phenomena we wanted to study. Accessibility and geographic proximity were relevant criteria as well, besides the teachers' willingness to make special arrangements on behalf of the research (Yin, 2009). At the start of each case-study, the parents were informed about the research, and asked for their (written) consent for their children's participation. We granted children to participate on a voluntary basis. They

could always withdraw from the research at any moment, and we asked for their consent to use whatever they wanted to share. We explained the children the aims of the research, being aware that ethics, power, and reciprocity are always at stake (Bertram et al, 2016).

Audiotaped semi-structured interviews were held afterwards with the children's parents and their teachers about their views on educational practices in general, and more specifically in relation to their children involved.

All data were transformed into word by word transcriptions. Qualitative data-analysis software was used for the ongoing comparative qualitative data analysis of these transcriptions (Tertoolen, Geldens, van Oers & Popeijus, 2015; Tertoolen, van Oers, Geldens & Popeijus, 2016).

We built a coding system to analyze children's expressions, based on three categories of the school context: children's attitude towards school activities, towards school organization, and towards teacher's roles, in a process of open coding (see Table 1).

Table 1

Coding System with Main Categories, Subcategories and Properties

Category	**Subcategory**	**Property (and Relations)**		**P/F/O**
1. Attitude towards School Activities	01. Affect	Suggesting		
		Preferring		
		Rejecting		
		Assigning		
		Revealing		
	02. Cognition	Demonstrating		
		Commenting		
		Questioning		
		Narrating		
	03. Behavior	Collaborating		
		Postulating		
		Showing		
2. School Organization (rules / routines / planning)	04. Adoption	Following		
		Accepting		
		Imposing		
	05. Modification	Ignoring		
		Adjusting		
		Opposing		
3. Teacher's Roles		i / r /a		
	06. Instructor		Obliging	
			Learning	
			Adding	
	07. Facilitator		Initiating	
			Assisting	
			According	
	08. Educator		Mediating	
			Attending	
			Complimenting	
			Correcting	
			Passing on	
			Care taking	
	09. Cultural mediator		Conveying	
			Exchanging	

Note. A relational component or a combination of relational components can be added to all the properties: P (Peers) / F (Family) / O (Other, but not the own teacher of the child). The kind of the child's expression, in relation to his teacher, is added to the properties in category 3 by: i (in interaction with the teacher), r (in the role of the teacher) or a (about the teacher, without the teacher being present).

We added properties to these (sub)categories to specify children's expressions and actions, e.g. preferring, commenting, collaborating, as well as teacher's actions and intentions, regarding the case-study children, e.g. initiating, complimenting, mediating (Tertoolen et al., 2015).
In addition to this formal system for the analysis of children's expressions and (inter)actions, we also needed another, external, theory-based tool for the analysis of voice content. We formulated characteristics, or indicators, as manifestations of young children's attribution of meaning within the school-context, i.e. their voice:

1. Expressing feelings and choices;
2. Sharing ideas about competences and needs;
3. Showing knowledge by pointing out, investigating, confirming, and opposing;
4. Intending to gain something related to/at the expense of others.

Finally, properties from our coding system, which associated with elements of the indicators of attribution of meaning, were included into a framework for the analysis and comparison of children's narratives within a school-context. This framework enabled us to look into children's notions - their intentions and motives - and modes of expressing, in a systematic and transparent way. Table 2 shows our four indicators of attribution of meaning, related to the properties in our coding system

Table 2
Indicators of Attribution of Meaning, Related to Characterizations of Children's Expressions (Properties With Possible Elements of Conation: Thinking, Feeling, Wanting)

Indicators of Attribution of Meaning by Children	**Children's Expressions**	
	Properties	**Conation**
1. Expressing feelings and choices	Preferring Revealing	Possible elements of: Thinking / Feeling / Wanting
2. Sharing ideas about competences and needs	Demonstrating Collaborating Showing Assisting Attending Complimenting	
3. Showing knowledge by pointing out, investigating, confirming, and opposing	Commenting Accepting Adding Initiating Exchanging	
4. Intending to gain something related to others/ at the expense of others	Suggesting Rejecting Assigning Postulating Imposing Opposing According Correcting	

The coding system, developed for the classification and analysis of children's expressions, was also used for analyzing the expressions of the adults in the interviews. We had to add one property extra, about school management. The topic school management was brought forward by the adults and not by the children.

We carried out qualitative data analyses, starting with within-case-study analysis. Followed by cross-case-studies analysis (Miles & Huberman, 1984), based on the expressions of the case-study children (Tertoolen et al.,

2016). In the same way we analyzed the expressions of proximal (significant) others: the children's parents and teachers.

In our five case-studies we had three boys, Tom (6.5), Irfan (6.0) and Lennart (6.6), and two girls, Margareta (5.6) and Bernadette (5.7). Irfan and Margareta attended the same class. So did Lennart and Bernadette, but at a school in another city. All children performed on an average cognitive and social-emotional level, as documented in the school's monitoring systems. Their social-economic background was middle class. They all lived in family settings with both their parents. Margareta was the only one without siblings.

Data Interpretation

We started analyzing the interviews with parents and teachers at a common sense level (Hedegaard, 2008b). This level is used to look into the specific situations of the adults involved, and to reflect on the shared information and interactions in these interviews. To control for a possible researcher bias in the analyses, we invited also two independent experts in the field of early childhood, to analyze a sample of four interviews (parents and teachers) in our case-studies. By comparing these analyses of researcher and experts, we were able to compose lists of 43 leading (returning and/or outspoken) expressions by the teachers involved, and 38 leading expressions by the parents. Expressions by teachers and parents, which were not connected to school activities, school organization, or teacher's roles (see also Table 1) were left out. We also composed a combined list of 133 leading expressions by the children. Those expressions all have codes, which are related to the indicators of attribution of meaning in Table 2. We finally selected the expressions with codes, related to the indicators 3 and 4. We have chosen these expressions, as the indicators 3 and 4 provide the most outspoken indications for expressing voice and attribution of meaning (Kjørholt, 2005; Mayall, 2008; Tertoolen et al., 2012). We then had to compare the list of children's leading expressions with the list of teacher's and parent's expressions, to find out whether correspondences - to some extent – existed between the expressions of the children and adults within our case-studies. We wanted to make sure that this could be done in a transparent, consistent and reliable way. In line with the construction of our coding system, we

decided to create a taxonomy for distinguishing and interpreting corresponding expressions on four levels, that took account of the nature and content of all the expressions and their context.

- *Level A.* Child and adult use literally the same words or word combinations for the expression of their voice on school related matters. The situations and/or context child and adult refer to, are highly identical.
- *Level B.* Child and adult use words or word combinations which look alike, but are not identical (synonyms). The situations and/or context child and adult refer to, are highly identical.
- *Level C.* Child and adult use literally the same words or word combinations for the expression of their voice on school related matters. The situations child and adult refer to differ; the contexts are different.
- *Level D.* Child and adult use words or word combinations which look alike, but are not identical (synonyms). The situations child and adult refer to differ; the contexts are different.

In the lists of leading expressions we left out all the names of children and adults and randomized the sequences of collected expressions. The researcher compared all the expressions on the 4 levels. To control for a possible researcher's bias, the two independent experts were invited to compare each half of the list of children's expressions (split half: 67 expressions each out of 133). A manual for using the taxonomy for comparing the expressions was provided along with a step-to-step plan. Both experts confirmed afterwards to have followed the step-to-step plan carefully: each expression by a child was compared with each expression by a teacher and decided whether there was a correspondence at level A, if not at level B et cetera, or no correspondence at all. After comparing all teachers' expressions, the comparing of parents' expressions was carried out in the same way. In Table 3 we present an illustration of comparing children's expressions with parents' expressions by the experts on the 4 levels:

Table 3
Interpretations of Correspondences Between Children's and Parents' Expressions

	Parents' Expressions	Levels of Correspondences			
		A	B	C	D
P02	I consider it important that children like to learn, are able to work. Of course the ordinary subjects. Mathematics, language, as well as geography and whatever else		C023	C051 C079	C027

Note. P02: The second expression in the list with parents leading expressions (P). C023, C051, C079, C027: Numbers of expressions in the list with children's leading expressions (C):

C023: [Miss X is asking child Y what Y has been doing during 'working hour']. Child Y: "I have been working very hard in my workbook."

C051: [Researcher: what are you good at in school?] Child Y: "Listening. Mathematics, doing sums. Well… 4 and 4 for instance, makes 8. It is counting with working."

C079: [Child Y is doing sums on a piece of paper in the play area while playing school] Child Y shows a peer the sums on the piece of paper: "Sir, just look how well I have done?"

C027: [Miss X is showing the letter R and then the letter T]. Child Y: "That… I know as well!"

Both experts reported that they coded the lists of expressions in intervals of time (up to a maximum of 1 or 2 hours each time) to remain concentrated.

Results

Quantitative Descriptors

Looking at the outcomes of comparisons by the researcher and the two experts, we arrived at the following findings.

Researcher and experts have found correspondences between the leading expressions by the children and 39 out of the 43 leading expressions by their teachers (a similarity of 91%). The total number of children's expressions corresponding to the teachers' expressions found by the researcher (162) was similar in 124 cases with the corresponding expressions found by the experts (a similarity of 77%). It turned out that from the 124 similarities in

comparisons of expressions, in 88 cases (71%) children's expressions were found corresponding to teachers' expressions on the same level by researcher and experts.

Researcher and experts have found correspondences between the leading expressions by the children and 30 out of the 38 leading expressions by their parents (a similarity of 79%). The total number of children's expressions corresponding to the parents' expressions found by the researcher (94) was similar in 86 cases with the corresponding expressions found by the experts (91% similarity). It turned out that from the 86 similarities in coding, in 69 cases children's expressions were found corresponding to parents' expressions on the same level by researcher and experts (80% similarity).

Out of the 124 of children's expressions found corresponding to teachers' expressions, by both researcher and experts, 49 expressions by the children (40%) appeared to be corresponding to their own children's teacher. So 60% of children's expressions was found corresponding to other teachers, unknown to the children. This concerned all children involved in the research.

Out of the 86 of children's expressions found corresponding to parents' expressions, by both researcher and experts, 32 expressions by the children (37%), appeared to be corresponding to their own parents. So 63% of children's expressions was found corresponding to parents of other children. This also concerned all children involved in the research.

Qualitative Descriptors

Looking at the children's expressions corresponding with teachers' expressions on level A, we noticed expressions in which children were commenting issues relevant to teachers. These were comments such as, teachers expecting older children to assist younger children, and on the other hand commenting the role of the teacher as an educator, e.g. a teacher correcting children. This was in line with children's expressions corresponding with parents' expressions. Children were commenting the rules in school, while the parents assumed that their children mostly obeyed the school rules. This was also the case even when those rules in school did not match with the rules at home. Some parents stated that their child's school had adopted many rules. Sometimes children claimed that their work

was finished (school activities), while teachers expected children to 'add' more results and the work could be done in a more proper way. Some parents agreed that their children sometimes felt the need to rush through the activities. Both teachers and parents expected children to have a pleasant time at school.

In Table 4 we present an illustration of children's expressions corresponding with a teacher's expression (T) and a parent's expression (P) on level A. In the Table the scores of properties (see Table 1) and the related indicator 3 are shown too (see Table 2).

Table 4
Children's Expressions Corresponding With a Teacher's and a Parent's Expression on Level A

Children's Expressions	**Properties and Indicators**			**Expressions Teachers (T) and Parents (P)**
[Some children are playing in the classroom, others in the hall of the school building] Lennart [to a peer] "What a calmness in our classroom!"	Commenting	3	(T)	"In my opinion, due to the pressure of all school obligations, everything you´ll have to do, it is not always relaxing. Sometimes I can´t find the time to create necessary calmness for the children."
Lennart [to the researcher and pointing at two peers and himself]: "We all like school!"	Commenting	3	(P)	"I expect my child to be well educated and that he will learn a lot. Also socially. And that he will like it at school. I want the school to give my child a pleasant time. I liked school in the past as well."

Note. Level A: Child and adult use literally the same words or word combinations The situations and/or context referred to, are highly identical.

Looking at the children's expressions corresponding with teachers' expressions on level B, we noticed again expressions in which children commented on teachers' opinions about the school rules and on, what teachers called, their role as an educator. Children also responded to the presented school activities which, according the teachers, were meant to support children to move to the next grade. Though parents, as well as teachers, wished for the children a pleasant stay at school, they also expected enough time and space for children's development in initial reading and mathematics. They considered this an educational assignment.

In Table 5 we present an illustration of children's expressions corresponding with a teacher's expression (T) and a parent's expression (P) on level B. In the Table the scores of properties (see Table1) and the related indicator 3 are shown too (see Table 2).

Table 5
Children's Expressions Corresponding With a Teacher's and a Parent's Expression on Level B

Children's Expressions	**Properties and Indicators**			**Expressions Teachers (T) and Parents (P)**
[Circle time: Miss J is holding up the letter R and then the letter T] Margareta: "That… I know as well!"	Commenting	3	(T)	"Anyway, all the preparatory things, pre-writing and so, which they'll have to know to move on to the next grade. Of course I have to offer the children a little package for grade 3 […]."
[Interview – Researcher: how was it to make a drawing after the story?] Tom: "That's nice, for you can put all the pages together – a little book. And then you can read out loud. The children and at home, daddy and mommy."	Commenting	3	(P)	"To my opinion: a preschooler is a preschooler. But, when Tom is interested in learning [mathematics e.g.]. Okay. Then it is fine."

Note. Level B: Child and adult use words or word combinations which look alike, but are not identical (synonyms).The situations and/or context child and adult refer to, are highly identical

Looking at the children's expressions corresponding with teachers' expressions on level C, we noticed mainly children's expressions corresponding with teachers' expressions about school and behavioral rules, the school activities and teacher's roles, and in particular expressions referring to (age)differentiation.

In Table 6 we present an illustration of children's expressions corresponding with a teacher's expression (T) and a parent's expression (P) on level C. In the Table the scores of properties (see Table1) and the related indicators 3 and 4 are shown too (see Table 2).

Table 6
Children's Expressions Corresponding With a Teacher's and a Parent's Expression on Level C

Children's Expressions	**Properties and Indicators**			**Expressions Teachers (T) and Parents (P)**
[Researcher: "what is not going too well at school?"] Tom: "Well, ehmmmm… those difficult tasks. Well, ehm… folding… A… tractor."	Commenting	3	(T)	"There are a lot of things children don't know yet and then they won't choose them. Sometimes it takes too long. So, a folding activity, or cutting an art work, we sometimes just present them and then the children just have to carry out those activities."
[Miss C is asking the children what materials have to be provided in the play area to play school. Difficult jigsaw puzzles?] Bernadette: "But only for the oldest children, then!"	Commenting	3	(P)	"Some time ago, my child asked for more difficult jigsaw puzzles, but she wasn't allowed, for she was a youngest child or a middle… I don't know. But if my child is certain that she can handle this difficult puzzle, then she should be challenged. That fuzz about a puzzle, I think it's stupid. They are sometimes too rigid about those things at school. I am a bit more flexible."

Note. Level C: Child and adult use literally the same words or word combinations. The situations child and adult refer to differ; the contexts are different.

Looking at the children's expressions corresponding with teachers' expressions on level D, we noticed a wide range of children's as well as teachers' and parents' expressions. Level D expressions by teachers and

parents showed that teachers intended to offer children a lot. Not only in the cognitive sense, but mainly in pedagogical sense, like supporting self-confidence, being sportsmanlike, and they proclaimed that all children had the right to be. The teachers also intended to provide an agreeable live and working climate. The parents shared these notions as well.

In Table 7 we present an illustration of children's expressions corresponding with a teacher's expression (T) and a parent's expression (P) on level D. In the Table the scores of properties (see Table1) and the related indicators 3 and 4 are shown too (see Table 2).

Table 7
Children's Expressions Corresponding With a Teacher's and a Parent's Expression on Level D

Children's Expressions	**Properties and indicators**		**Expressions Teachers (T) and Parents (P)**	
[Irfan watches three children playing memory] Irfan: "Can I join in?" [A peer wins the game] Irfan: "Are we going to play again, yes? I like this one! Yes?" [The peer wins again] Irfan: "This time I'll start first and then I am going to win. Yes?"	Suggesting Postulating	4 4	(T)	"What I'd like to give children is self-confidence. I am working on it and that is what I radiate. Children feel it. What I am sending is positivism. Passing on values about how to treat each other, to share, to listen."
[Miss M says that she will stick the daffodils, which the children have made, on the classroom window] Lennart: "Why do we have to make two?" [Miss M: "That's nicer, so the daffodil won't be so lonely."] Lennart: "But you have also daffodils made by the other children, don't you? If you put them all on the window, you can't see through it anymore!"	Commenting	3	(P)	"Education should also contribute to the social perspective, so children learn to stand up for themselves."

Note. Level D: Child and adult use words or word combinations which look alike, but are not identical (synonyms). The situations child and adult refer to differ; the contexts are different.

Non-Corresponding Expressions

Not all children's expressions were found corresponding (according to researcher and experts) to the adults' expressions. Out of the total of 133

children's leading expressions, 40 expressions (30%) appeared not to be corresponding - or only on a minor element – with teachers' or parents' expressions. This concerned the following kinds of expressions:

Five non-corresponding expressions referred to the daily routines in school, school activities, school organization and teachers' roles. Though, other comparable children's expressions were found corresponding with teachers' expressions (see Table 5: Margareta).

Seven non-corresponding expressions referred to expressions in which the children were searching for boundaries about what is or is not permitted within the school contexts. The teachers mostly were correcting the children:

1. The teacher tells the children to stay on their chairs during circle time. Margareta is lying on the floor making noises. The teacher tells Margareta to sit down. Margareta rises, sits on her chair, sighs very loudly and slips from her chair again.

Four expressions by Irfan were not found corresponding. One of these expressions was as follows:

2. Irfan, in a small group of children, is making figures with colored beads (compulsory activity). His classroom assistant asks him what he is creating. Irfan (pulling up his shoulders): "I am making an Arab letter." The classroom assistant: "It looks like a little heart to me." Irfan sweeps all the beads together at once. Irfan: "I am making a Ferrari. And a pistol. Oh yes, and a small trunk on the side of the car."

Five non-corresponding expressions were made by the children referring to the activity with photographs about what they considered important in school:

3. Lennart is looking at his photographs: "Oh, all the prices (cups and medals) and the shining little fish (aquarium). Oh, take a good look: the tiger-fish. And here is Bernadette (peer), and another Bernadette and Jan (peer and best friend). Oh, the

toilets… and musical instruments. The classroom and miss Cecile, oh, and the television."

Eight non-corresponding expressions referred to interactions with their peers:

4. Tom is coloring a triangle: "Look Maaike (peer), how well done!"
5. Miss Magda presents Bernadette a yellow hoop. Elza (peer and friend) has a red one. Bernadette wants to have the red one instead and starts to pull it from Elza's hands. While Elza is letting it go, Bernadette falls backwards.

In three non-corresponding expressions the children indicated what they wanted and did not want to do in reaction to a teacher's assignment. The word 'wanting' was explicitly expressed:

6. The children have to draw one of the animals in the water tray: a frog or a seal (compulsory activity). Margareta: "I don't want to." Margareta starts drawing a shark (as she explains later on).
7. Miss Cecile is looking at the lotto Lennart and Jan have made (in the hallway). The lotto is positioned in a horizontal way. Lennart and Jan have left the hallway. Miss Cecile shifts the lotto in a vertical position. Lennart and Jan return to the hallway. They bring back the lotto into the horizontal position. Lennart: "We don't want it that way. We want it like this."

Finally, there are eight non-corresponding expressions, referring to feelings towards their schools and their ideal schools. Whilst talking about their ideal schools, the children also explicitly expressed the word 'wanting':

8. Irfan: "I would like to play with a tree. To climb it (on the school premises). I would do it with Tarzan. I want to have a fight with Tarzan."

9. Bernadette: "I would like to have my cat around in school, then I could play with her all day."

The possible meanings and explanations of the analyses and interpretations of these results of corresponding and non-corresponding expressions, will be discussed in the next section.

Discussion and Conclusion

We started this article with the following questions: (1) Which correspondences can be discovered in the voices of proximal others (parents, teachers, peers) and an individual child's voice? (2) Which expressions can be found that do not correspond to proximal others?

To answer the first research question: illustrations of corresponding expressions between children's and teachers' and parents' expressions were presented in the Tables 4–7. Looking at the different Tables as illustrations of different types of expressions, we saw that many of the corresponding teachers' and parents' expressions referred to the perspectives on an institutional level: the school (Bronfenbrenner, 1979; Hedegaard, 2008a), see also Figure 1. We saw the same in children's corresponding expressions (Tables 3-5). In Table 7 the teacher and parents shared their expressions at a societal level of perspectives, whilst the corresponding children's expressions referred to the institutional level of perspectives (Figure 1). We found correspondences in expressions of children, their teachers and parents concerning the school activities, school organization, and teachers' roles. Correspondences in expressions concerned mainly school organization. In the children's voices the rules and routines in school resounded: how to accomplish your school work, when and how to clean the classroom, how to act om the school premises and so on. In children's voices the perspectives of their teachers and parents concerning the importance of doing well in school and to be educated in school subjects, resounded as well (Tables 5-6).

Looking at the correspondences in expressions between the children and adults, we noticed that 60% of the children's expressions were corresponding with expressions of a teacher, unknown to the children. Also 63% of the children's expressions were corresponding to expressions of

other children's parents. In analyzing the narratives of both teachers and parents, we found similarities in those narratives. Parents and teachers agreed, to a large extent, upon the importance of acquiring academic skills to be able to move to the next grade in school, keeping to the school rules and routines, offering children an agreeable school time with lots of possibilities to play with peers, and supporting children to become self-confident and to stand up for themselves. Issues that were obviously related to common societal or institutional perspectives of adults in general, and which resounded in children's voices as well. It is plausible to interpret this fact as an indication of young children's access to *social representation* (Moscovici, 1981) about school, which they obviously share with adults of their community and they can use as a source for their actions and expressions.

At the same time children expressed resistance to some extent. Sometimes they discussed the school rules and why they had to keep to them, or they discussed the amount, as well as the relevance of the work, they had to accomplish (Table 7). Discussion is a form of resistance and in that sense an appropriate label for indicator 3: showing knowledge by pointing out, investigating, confirming, and opposing.

In answer to our second research question, we also discovered children's expressions that did not correspond with the expressions of proximal others. We found children's expressions which were not corresponding with their own teachers' and parents' expressions, nor with the teachers' and parents' expressions of the other case-study children. Many of the presented illustrations of non-corresponding expressions by the children referred to situations in which resistance was shown openly. In the presented non-corresponding expressions 1-2 and 5-7 the children tried to achieve a personal goal, resisting – to some extent – the intentions of the teacher or a peer: sitting still during circle time, accepting a yellow hoop handed over by the teacher, positioning a lotto in a horizontal way. Hedegaard (2008a) refers to this kind of outspoken resistance as an expressed conflict, when a child is not able to do what he wants to do in line with his intentions. Conflict is in that sense an appropriate label for indicator 4: intending to gain something related to or at the expense of others. It is a strong indication for children's authentic voice and agency.

Resistance is possible in a school-context which children are able to control to a certain extent (Holland et al., 1998) and, when children feel the need to it and are enabled, to remake it to a certain extent as well (Meadows, 2010; Rainio, 2010). In expressing resistance, in discussions and in conflicts, children may also show moral and intellectual autonomy to a certain extent. Teachers have to deal with these kinds of behavior, balancing between the rules and restrictions in schools for the benefit of all, and the need for individual children to develop into autonomous and social citizens in our western society.

By comparing children's expressions systematically with teachers' and parents' expressions, we gained insight in types of expressions of all participants involved, as well as the correspondences between the voices of teachers and parents (proximal others) and the voices of the individual children. In the results section we have described the steps we have taken to approach the essence of the narratives of the proximal others, compiled in lists of leading expressions by teachers and parents, and the measures we have taken for expanding transparency and reliability. At the same time, the results of our case-study research cannot be generalized to all young children and their parents and teachers. A survey-study in the future, with many more children in various circumstances, involved over a longer period of time, could probably benefit from the outcomes of this case-study research.

References

Bakhtin, M. M. (1981). *The Dialogic Imagination. Four Essays by M.M. Bakhtin.* Edited byM. Holquist. Austin: University of Texas Press.

Bronfenbrenner, U. (1979). *The ecology of human development. Experiments by nature and design.* Cambridge, Mass.: Harvard University Press.

Bertram, T., Formosinho, J., Gray, C., Pascal, C., & Whalley, M. (2016). EECERA ethical code for early childhood researchers. *European Early Childhood Education Research Journal*, *24*(1), iii-xiii. doi:10.1080/1350293X.2016.1120533

Eteläpelto, A., Vähäsantanen, K., Hökkä, P., & Paloniemi, S. (2013). What is agency? Conceptualizing professional agency at work. *Educational Research Review, 10*, 45–65. doi:10.1016/j.edurev.2013.05.001

Hargreaves, A. (2003). *Teaching in the Knowledge Society: Education in the Age of Insecurity.* New York: Teachers' College Press.

Hedegaard, M. (2008a). A cultural-historical theory of children's development. In M. Hedegaard & M. Fleer, *Studying Children: A Cultural-Historical Approach* (pp. 10-29). Maidenhead: Open University Press.

Hedegaard, M. (2008b). Principles for interpreting research protocols. In M. Hedegaard & M. Fleer, *Studying Children: A Cultural-Historical Approach* (pp. 46-64). Maidenhead: Open University Press.

Holland, D., Lachicotte Jr., W., Skinner, D., & Cain, C. (1998). *Identity and Agency in Cultural Worlds.* Cambridge/London: Harvard University Press.

Kjørholt, A. T. (2005). The competent child and 'the right to be oneself': reflections on children as fellow citizens in an early childhood centre. In A. Clark, A.T. Kjørholt, & P. Moss (Eds.), *Beyond listening. Children's perspectives on early childhood services* (pp. 151-173). Bristol: The University Press.

Mayall, B. (2008). Conversations with children. Working with generational issues. In P. Christensen & A. James (Eds.) (2nd ed.), *Research with children. Perspectives and practices* (pp. 109-124). London: Routledge.

Meadows, S. (2010). *The Child as Social Person.* London: Routledge.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). London: Sage.

Moscovici, S. (1981). On social representation. In J. P. Forgas, *Social Cognition* (pp. 181-209). New York: Routledge.

Rainio, A. P. (2010). *Lionhearts of the playworld. An ethnographic case study of the development of agency in play pedagogy.* Helsinki: University Print.

Robson, C. (2011). *Real world research* (3rd ed.). Chichester: Wiley.

Tertoolen, A., Geldens, J., van Oers, B., & Popeijus, H. (2015). Listening to Young Children's Voices: The Evaluation of a Coding System.

International Journal of Educational Psychology, 4(2), 113-141. doi:10.17583/ijep.2015.1500

Tertoolen, A., van Oers, B., Geldens, J., & Popeijus, H. (2012). Building a method for researching attribution of meaning by children aged 5 to 6 in school. *European Early Childhood Education Research Journal, 20*(1), 115–131. doi:10.1080/1350293X.2012.650015

Tertoolen, A., van Oers, B., Geldens, J., & Popeijus, H. (2016). Exploring the Content of Young Children's Multidimensional Voice Related to School Contexts. *Research & Reviews: Journal of Educational Studies, 2*(1), 6-17.

Wertsch, J. V. (1991). *Voices of the mind. Sociocultural approach to mediated action.* Cambridge, MA: Harvard University Press.

Wertsch, J. V. (2002). *Voices of collective remembering.* Cambridge: University Press.

Yin, R. K. (2009). *Case study research. Design and methods* (4th ed.).Thousand Oaks, California: Sage.

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Enhancing Expectations of Cooperative Learning Use through Initial Teacher Training

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Abstract

Despite its relevance and evidence support, Cooperative Learning (CL) is a challenge for all educational systems due to the difficulties in its implementation. The objective of this study is to identify the effect of Primary Education initial teacher training in the prediction of future CL use. Two groups of 44 and 45 students were conceptually trained, with the latter also having the opportunity to experience CL in the university classroom. Opting for mixed methods research, this study tries to identify changes in a pre- and post-test Cooperative Learning Implementation Questionnaire and to explain possible changes through 4 focus groups. Quantitative results show differences in expectations of CL success and index of CL use for the group that had the CL experience. Qualitative data revealed that improvements can be explained by the increase in students' awareness of the learning opportunities that CL offered them, giving and receiving scaffolding help, preparing activities and enhancing motivation.

Keywords: Expectations, Cooperative Learning, initial teacher training, peer learning, peer tutoring

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Mejora en la Expectativa de Uso del Aprendizaje Cooperativo a través de la Formación Inicial de Profesorado

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Resumen

A pesar de la relevancia y evidencias que lo apoyan, las dificultades de implementación del aprendizaje cooperativo (AC) constituyen un reto para todos los sistemas educativos. Este estudio trata de identificar el efecto de la formación inicial del profesorado de primaria en la predicción del uso futuro del AC. Dos grupos de 44 y 45 estudiantes recibieron formación conceptual y el último, además, tuvo la oportunidad de experienciar el AC en las aulas universitarias. A través de un diseño de investigación mixto, el estudio identifica los cambios en una aplicación pre y post-test del Cooperative Learning Implementation Questionnaire y los explica con 4 grupos de discusión. Los resultados cuantitativos muestran diferencias en las expectativas de éxito y en la disposición general al uso del AC para el grupo que experienció el AC. Los datos cualitativos lo explican por el incremento de la consciencia de las oportunidades de aprendizaje que el AC les ofreció, recibiendo y ofreciendo ayuda andamiada, preparando actividades y aumentando la motivación.

Palabras clave: Aprendizaje cooperativo, Aprendizaje entre iguales, expectativas, formación inicial del profesorado, tutoría entre iguales.

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Educational reforms at all levels and in all countries highlight the need to use Cooperative Learning (CL) as a teaching and learning strategy based on the active and main role of students (Barr & Tagg, 1995). The educational relevance of CL can be based on different reasons. Firstly, because cooperation is a key competence for the knowledge society (Rychen & Salganik, 2001); because it develops skills and attitudes needed for the democratic society (Sharan, 2015; or Perrenoud, 2001); because it is a learning motor, as we learn thanks to interaction with people who have a relatively higher competence level than our own and who can help us, with appropriate guidance, in the zone of proximal development (Wells, 1999); and because it is a valuable strategy for inclusive and quality education as it uses differences among students as a source of learning (Stainback & Stainback, 1999; Gillies, 2014). Moreover, following Johnson and Johnson (2014), CL is an essential tool to meet the challenges of the 21st century: global interdependency, democratization, entrepreneurship, and interpersonal relationships.

However, although CL has been extensively studied by Educational Psychology (Johnson & Johnson, 2009), showing many educational benefits (see a recent meta-analysis by Kyndt, Raes, Lismont, Timmers, Cascallar, & Dochy, 2013), the reality is that its practical use in the classroom still faces many difficulties and resistance, regardless of the geographical or cultural context (Kagan, 2005; Hennessey & Dionigi, 2013; Lobato, 1998; Rué, 1998; Sharan & Sharan, 1994). Sharan (2010) summarized this paradox between the pedagogical value of CL and the problems of putting it into practice, and pointed at some elements to overcome this: training teachers in the conceptual bases of CL; distinguishing different types of methods and techniques; organizing interactions within the teams; and developing the new transformational (non-transmitting) role of teachers.

Regarding the first element, teacher training, many studies coincide in the fact that the difficulty of CL implementation has to do with the lack of knowledge or comprehension of such a method (Gillies & Boyle, 2008). In this respect, many teacher training projects and studies have been developed to see its long-term outcome (Ishler, Johnson, & Johnson, 1998; or Krol, Sleegers, Veenman, & Voeten, 2008).

In the field of initial teacher training, initiatives are being developed at universities (Cohen, Brody, & Sapon-Shevin, 2004), whose results seem to point to the need to consider at least two elements. On the one hand, there seems to be some agreement on the need to use experiential learning (Sharan, 2015), based on CL simulations that allow students to go beyond learning about CL to learning through CL, thus enhancing the conceptual shift (Koutselini, 2009). Another agreement that derives from initial training programmes is the necessary "coordination between what the interns see and do at the university and what they see and do in actual classrooms" (Cohen et al., 2004, p. 10).

Results from these studies show that training is necessary, but not enough (Abrami, Poulsen, & Chambers, 2004; or Sharan, 2010). It seems then that the challenge has to do with this new teaching role, which overcomes the old transmitting role. In CL, teachers are not a transmitter of knowledge, but instead someone able to structure scenarios that guarantee appropriate interdependency and interaction among students, as well as promote and support productive and constructive ways of relating, dialogue and communication; transferring to students both control as well as the main role in the activity (Mayordomo & Onrubia, 2015). The teacher's role in these CL-organized classrooms requires the development of specific competences (Gillies, 2007; or Sharan, 2015). Kaendler, Wiedmann, Rummel, and Spada (2015) presented a first theory and research framework on the competences to implement CL in the classroom, organizing it into three classical moments: before the interaction among students (pre-active or planning); during the interaction among students (inter-active), and at the end of the activity (post-active or reflective).

Although the planning and reflective stages may and should be taught in CL conceptual training, those competences involved while students work in teams can only be learnt experientially, as has been advocated, by placing students in CL-organized classrooms (Jolliffe, 2015). In this respect, offering situations where prospective teachers can not only see, together with their university teacher, how to develop their role, but also experience it, may be a powerful way of improving expectations of CL use.

These expectations are related to the concepts that these teachers have about the teaching-learning processes, that is, their representations about what

learning and teaching means in a cooperative learning context and their role in this process (Ruys, Van Keer, & Aelterman, 2014). As pointed out by Veenman, van Benthum, Boosma, van Dieren, and van der Kemp (2002), the higher the degree of familiarity and competence concerning cooperative learning, the more favourable attitudes the teachers will develop towards it and the easier it will be for them to implement it in the classroom. Thus, the teachers' perceptions about CL are a key aspect that allows us to explain, to a great extent, the decision to implement CL as educational innovation in the classroom, its effectiveness, and persistence of use (Gillies & Boyle, 2008; Prieto, Fernández, Cecchini, Méndez & Méndez, 2016). In this respect, Abrami et al. (2004) designed the CLIQ questionnaire (*Cooperative Learning Implementation Questionnaire*) to assess teachers' perceptions concerning CL use and to get to know the reasons why they decide to implement it and persist in its use. The questionnaire is based on three factors: value, expectancy, and cost.

Value items assess to what extent teachers perceive CL as beneficial for the teachers themselves (coherent with their teaching philosophy and as an aspect for professional improvement) and for the students (increase in academic performance and improvement in interpersonal attitudes and skills).

Expectancy items explore the teachers' perceptions concerning CL use and expected results. On this scale are the teacher's internal attributions (assessment of their own skills and their perception of self-efficacy) and external attributions (perception of the students' characteristics, the classroom context, and support given by the educational institution).

Finally, cost items assess perceptions of the physical and psychological cost of CL use, which acts as discouragement to putting it into practice. It includes items related to time needed to prepare classes, effort and preparation of special materials.

From the results obtained after applying the questionnaire to more than 1000 teachers, the authors developed a theoretical model where they weighed up these three factors to estimate differences between teachers using CL in their classrooms and those who did not. This model can be summarized in the following equation: (0.44 x expectancy) + (0.04 x value) - (0.01 x cost) = Index of cooperative learning use. This model considers that expectancy of success plus the value of the implementation minus costs associated with its

implementation may account for more than 40% of variance in the extent to which teachers introduce CL regularly into their daily routine.

Given this background, it is relevant to continue studying this field as, although some factors that can determine the degree of CL use by teachers have been identified, we still do not know what performances may have greater influence on future CL use in initial teacher training. The point is to improve expectations of CL use and thus guarantee necessary learning concerning CL implementation in the classroom when they work as teachers, so that CL becomes a usual practice in schools. To this end, the main objective of this research is to get to know the repercussions of conceptual and experiential training on the expectations of CL use by prospective teachers and to analyse possible causes behind them.

For this reason, we designed a research study based on two groups of prospective teachers. The first group (A) received only conceptual training in CL, and the second group (B), in addition to conceptual training in CL, were offered to experience the CL method through two peer tutoring (PT) activities in their university classroom.

We start from the hypothesis that the group of students that experienced CL (group B) would improve expectancy of success in CL use, as well as in the value given to CL, and, on the contrary, and logically, there would be lower perceptions about the physical and psychological cost involved by CL implementation in the classroom. In short, this group of students was expected to have better results in the overall Index of CL use than the students who only received conceptual training (group A).

Moreover, we aim to enrich results with a look into the causes that lead to such changes from the following questions:

(a) What process elements in their experience are responsible for their own learning, both tutors and tutees, and possible cause for the changes in the results of the Index of CL use?

(b) What key aspects have to be taken into account for the future use of PT (as a type of CL) in Primary Education classrooms?

Method

To develop this research, and following recommendations by Sharan (2010), two groups of students (A and B) received conceptual training in CL in 4 sessions, with a total of 6.5 hours and in 2 subjects in the first term of their 3rd year in the Primary Education degree course. The subjects belonged to the departments of Evolutionary and Educational Psychology: Learning and Development 2; and Language and Literature Didactics: Languages and Learning. The training objective was to have them get to know CL and its characteristics, different CL methods to implement it, as well as to promote reflection on the elements to be considered to design classroom interventions which include cooperative methods and on the teacher's role in the cooperative classroom. At the same time, students were presented with the PT programme *Leemos en pareja* [Reading in pairs] (Duran et al., 2016), with the participation of two teachers who coordinate the network of schools developing this programme, and some activities and materials were analysed. In the final exams of both subjects, knowledge worked on in these sessions was evaluated.

One of these groups (B) also had the chance to use one of these methods, PT (Topping, Duran, & Van Keer, 2016), for two sessions in 2 subjects of the same departments in the second term of the academic year: Differences and Inclusion, and Linguistic Project and Multilingualism, respectively. In each of these sessions, a group of 8 students, who acted as tutors, prepared some materials for the subject to be learnt by teaching them to groups of 5 peers respectively (who acted as tutees), asking them questions to activate previous knowledge and generate motivation, giving examples to explanations, questioning comprehension, and monitoring their solving of a problem. Finally, tutees and tutor assessed the session and their role.

Design

This research is based on a mixed-methods sequential explanatory design (Creswell, 2015), combining a pre/post-test quasi-experimental design to detect changes with a qualitative study based on the analysis of the process from data collected in focus groups to explain possible changes detected.

Sample

The sample consisted of 89 3rd-year students of the Primary Education degree at the Universitat Autònoma de Barcelona, divided into two groups: Group A consisted of 44 students who received conceptual training in CL; and group B consisted of 45 students who received conceptual CL training and experienced CL. Students were distributed into the group at random. All participants had been previously informed about the objectives of this research and voluntarily accepted to participate in the study.

Instruments

The following instruments were used in this study:

CLIQ: Cooperative Learning Implementation Questionnaire (Abrami et al., 2004), to assess students' perceptions concerning CL implementation. CLIQ consists of 48 items grouped in three scales: value given to CL, expectancy of CL success, and perceived costs for its implementation. These scales have good internal consistency (0.74, 0.86, and 0.87, respectively). Items were measured with a Likert scale, from 1 (totally disagree) to 5 (totally agree).

Focus groups: After the two sessions when students experienced PT, 4 focus groups were carried out: 2 with all the students that had acted as tutors (8 per session), and 2 with students that had been tutees (a random selection of 8 -one per group- per session). In the groups, students discussed their learning through experiencing PT in university classrooms according to the different roles. They also looked into the characteristics of CL, particularly PT, in Primary Education classrooms.

Data Collection and Analysis

Firstly, and prior to data collection, the objectives of this research were explained to the teachers that had to develop the conceptual training in both groups, and they were also told about the objectives, structure and content of

their training workshop in order to ensure similarity. Secondly, students in groups A and B were administered the CLIQ questionnaire twice, at the beginning –before training- and at the end of the term, as pre- and post-test. And finally, 4 focus groups were carried out and audio recorded, 2 with students that had acted as tutors, and the other 2 with students that had been tutored, both from group B.

For the statistical analysis of data obtained from the questionnaire, the IBM® SPSS® Statistics v.22 software was used. For all the statistical tests, the level of nominal significance was 5% ($p < 0.05$). The variables in the questionnaire were summarized by using descriptive measures (mean and standard deviation). To ensure basal homogeneity between groups, a comparative analysis was carried out at the beginning (baseline analysis). The differences between the two groups in the pre-test were assessed by using Student's t-test. Due to the lack of homogeneity between groups A and B (see Table 1), a general linear model was applied, including all those non-balanced variables. The model was adjusted to explain results in the post-test in relation to results in the pre-test, the group and the interaction between pre-test result and group. Multiple group comparisons were carried out by applying the Bonferroni correction for multiplicity of contrasts.

Table 1
Descriptive Statistics of pre-test for groups A and B. Mean (Standard Deviation)

	Group A (*n*=44) Pre-test	Group B (*n*=45) Pre-test
Expectancy	47.95 (8.18)	57.36 (5.71)
Value	62.95 (5.22)	63.36 (4.74)
Cost	20.64 (2.37)	20.04 (2.6)
CL Index	23.41 (3.74)	27.73 (2.57)

Regarding data collected from focus groups, they were transcribed and qualitatively analysed from the Grounded Theory (topic analysis) and using the Atlas-ti qualitative data analysis programme. Once the category system was agreed on and established, two previously trained researchers analysed and categorized the four focus groups independently. At random, 25% of the

total data analyzed were selected to check the degree of agreement between the two experts. Their degree of agreement was 96%. The few cases with disagreement were discussed until reaching 100% agreement.

Results

Firstly, we present results for the hypothesis from the statistical analysis of the questionnaires. Regarding descriptive statistics for post-test variables, the results of applying the linear regression model, including non-balanced variables (see Table 2), show that group B has higher scores than group A in the scales Expectancy, Value, Index of CL, and also in the Cost scale.

Table 2
Descriptive Statistics of post-test for groups A and B

	Group A (*n*=44) Post	Group B (*n*=45) Post
Expectancy	75.59 (6.75)	77.13 (7.03)
Value	86.93 (5.73)	87.29 (6.74)
Cost	17.09 (3.98)	18.02 (3.89)
CL Index	36.56 (3.12)	37.24 (3.27)

Results of multiple comparisons between groups (see Table 3) showed significant differences between groups A and B in the Expectancy scale (t=2.856; p=0.005). Group B had a score 3.58 points higher than group A.

Regarding the Value scale, there were no significant differences between groups A and B. About the Cost scale, there were no significant differences between groups A and B either.

Table 3
Differences between groups A and B in the Expectancy, Value and Cost Scale (post-test)

Model	B	t	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
Expectancy					
Intercept	72.503	12.020	.000	60.510	84.496
Expectancy	.064	.519	.605	-.182	.311
[Group_exp2=B]	33.668	2.856	.005	10.227	57.108
[Group_exp2=A]	0[a]	.	.	.	.
Value					
Intercept	92.624	7.942	.000	69.434	115.813
Expectancy	-.090	-.490	.626	-.458	.277
[Group_exp2=B]	-9.927	-.554	.581	-45.529	25.676
[Group_exp2=A]	0[a]	.	.	.	.
Cost					
Intercept	28.726	5.995	.000	19.199	38.253
Expectancy	-.564	-2.444	.017	-1.023	-.105
[Group_exp2=B]	4.976	.781	.437	-7.697	17.650
[Group_exp2=A]	0[a]	.	.	.	.

Finally, concerning the calculation of the Index of CL use (see Table 4), results show significant differences between groups A and B. Particularly, group B had 1.63 points more than group A.

Table 4
Differences between groups A and B in the Index of CL use

Model	B	*t*	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
Intercept	35.168	11.779	.000	29.232	41.105
Expectancy	.060	.474	.637	-.191	.310
[Group_exp2=EG]	16.263	2.770	**.007**	4.590	27.936
[Group_exp2=C]	0[a]	.	.	.	.

After these quantitative results, results from the analysis of the focus groups are presented, using the following thematic axes: learning perceptions of tutors and tutees; and CL characteristics that students highlighted, particularly concerning PT. As a result of this decision, the following system of categories was developed (see Table 5) from the analysis of audio material collected in the focus groups.

Table 5
System of Categories

1. Tutor's learning	1.1 Leader of the learning process
	1.2 Peer learning
	1.3 Previous preparation of activities
	1.4 Motivation
2. Tutee's learning	2.1 Significant materials
	2.2 Peer learning
	2.3 Cooperative method
3. Outstanding CL characteristics	3.1 Student autonomy
	3.2 Initial training
	3.3 Type of tutoring
	3.4 Involvement of teachers
	3.5 Use of resources
	3.6 Family participation
	3.7 Inclusive programme

We will now see results by dimensions. Regarding the first one, the aspects that students perceived as responsible for the tutors' learning are related to their leadership in the learning process, peer learning, previous preparation of activities, and also greater motivation, probably due to their taking on the role of tutors.

Students in the focus groups pointed at the idea that tutors' learning had to do with the opportunity to lead the learning process which, in the end, will be the role that they will have to implement in their prospective professional development.

> As prospective teachers, having to develop the role of tutor helps you to prepare yourself to teach others. At the end of the day, this is the role that we will have to develop (Tutor 3).

Moreover, they clearly identified that the role of tutor means taking on responsibility, making decisions and assessing the way to follow, considering the different answers received; this can be observed in the following comment, given by a tutee:

> At least, my group's tutor has shown her responsibility in a dialogical way. There was restlessness about her, she showed some sort of nervousness such as: this has to be done and has to be done like this, what do you think?... and probably the change of perspective might have been some double learning for her (Tutee, 5).

Another aspect that responses of the focus groups focused on was the possibilities of peer learning by tutors, resulting from the dynamics of PT. In this respect, students highlighted that learning which they could develop from interactions with tutees. In this sense, considering the degree of learning from other people's divergent answers, one of the tutors commented:

> I had an idea of what they could answer or not, but instead the peers I had as tutees answered something completely different to what I had thought. Therefore, you have the strategy you have prepared plus the one that your tutees give you (Tutor 8).

Both tutors and tutees also observed the importance of previously preparing materials for working sessions as an element of learning for tutors.

Tutees highlight the strategies that the tutor carries out previously and which also reinforces the previous category of the richness of peer learning:

> The tutor has learnt because she has had to prepare the task and has had to think about the strategies that every student could use, and when we said something to her that she mightn't have written, she then just thought: yes, yes, it's true. Thus, she was adding what she had prepared and she could add more things (Tutee 6).

The last highlighted aspect which, according to the focus groups, could have resulted in some learning for tutors, refers to motivation. The tutors' involvement in performing their role properly in order to guarantee the tutees' learning is an aspect that promotes significant learning and enhances studying content in more detail.

Once the tutors' and tutees' interventions in the focus groups are analyzed, we can clearly identify some of the key elements in the tutor's role that promote the tutee's learning, the development of the tutor role and the tutor's own learning. Firstly, feeling that the tutor is leading the tutee's progress of learning as well as their own can raise the tutor's awareness of the learning process and the search for the best strategies to promote it. This aspect can also be reinforced because the tutor prepares the PT sessions beforehand and plans the best strategies to guide the tutee's learning by offering scaffolding prompts rather than constructed answers. They also expressed the richness of the dialogue and discussion of the divergent aspects between the partners. This dialogue can strengthen their responses, generated by contrasting different points of view and by contributions from both partners. Finally, another crucial aspect in the tutor's learning was apparent from their motivation in performing the tutor's role, in the efficiency and success in achieving the progress of the tutee's learning, and, indirectly, the progress in their own learning. In short, the performance of the tutor role enhances the tutors' own learning because they must transcend the learner role to be placed in the role of teacher.

The answers regarding the possible causes for the learning developed by tutees in their experiential process were collected into three categories: significance of materials used, learning opportunities resulting from PT, and learning the cooperative method.

The importance of materials being of the tutees' interest is highlighted in order to promote significant learning in front of this task proposal. In this sense, in the tutees' focus group, they emphasized:

> Depending on the topic to work with or the text that students are given, they can get more or less involved. Because if the texts are not significant, it will then be more difficult for students to get involved. If the texts are interesting for students, then it can work much better (Tutee 2).

There are also different reasons related to peer learning that result in learning among tutees. On the one hand, there is learning due to direct help given by the tutor:

> If we were kind of lost in some of the questions, he would say: look, I thought we could do this, what do you think? And from there, we would give our opinion (Tutee 4).

Also from the reflections generated by the peer interaction process, or for the type of help, close and adjusted:

> It has also been helpful that the tutor has a very similar level to ours, because they have been in the same situation recently and they had a recent memory of it (Tutee 6).

Finally, we could also observe that the use of PT results in learning the CL method, which can be transferred to other situations in a simple way:

> Probably, if you just go on, at first it will be very limited to that space and once students get used to it then they won't be able to just do it in that space (Tutee 2).

From the interventions of students in the different focus groups, we can see the attributions given to aspects that may have an influence on the tutees' learning. While on the one hand they identified the need for the materials used to be of the tutees' interest, the most relevant aspect is the specific incidence of PT on the improvement in the tutees' learning. Some obvious aspects are highlighted in the use of PT, such as direct help provided by the tutor, while at the same time they observe that this has to be adjusted to the tutee's specific needs and characteristics. Another aspect that stands out, which has previously

been identified as a good opportunity for the tutors' learning, is the dialogue developed in the pair, as a result of reflection and contrasting divergent ideas and points of view.

The last thematic axis, related to key aspects to be considered when using CL, particularly PT, becomes important because, depending on the perceptions that participating students have during the experiential process, they may increase their expectations about it or not.

Thus, in this axis, there are different aspects that participating students perceive in the focus groups related to the implications of the students themselves: autonomy, initial training, and type of tutoring; with teachers: involvement and use of resources; also with the participation of families and the inclusive characteristics promoted by CL.

In relation to student autonomy, they pointed out the importance of adjusting help and progressively removing it in order to promote autonomy properly.

> There has to be some highly guided work at first, so that everyone knows what they have to do at every moment, and then you can start progressively removing these guidelines (Tutor 6).

They also observed the importance of having sound initial training to guarantee CL development:

> 'If you want to work with this sort (cooperative) of methods, you need some previous training with students. Otherwise, this can lead to some chaos in the classroom, as if they are not used to working like this, some of them may get distracted' (Tutor 5).

With regard to the role of teachers, they highlighted the importance of organizing time and previously preparing the task, the need to be able to give help to tutors with more difficulties, and the professional involvement that this PT programme requires was also explicitly mentioned:

> 'This programme requires the training of teachers, their involvement, their positive attitude towards the programme, and especially collaborative work among teachers, they should be aware that good results may take a while. Teachers have to understand that their working day does not end at school.

> This programme will require them to work at home, to be trained, to have more coordination meetings' (Tutor 5).

The tutors also pointed to the importance of properly explaining the learning experiences that tutors develop to the families so that they can understand why we use this method in the classroom.

> Tutor and tutee learn; this can be disturbing for families, giving evidence of this method so that they can understand it (Tutor 1).

Finally, the potential of this programme as a good instrument for educational inclusion is highlighted.

> This is a very good programme for all the students to become aware of the problems that their peers may have, that they can help them, and they can also help them back; for students with difficulties it is also positive because they feel important, they feel part of the group and this motivates them even more (Tutee 7).

Therefore, the prospective teachers, after experiencing PT, are able to see the key aspects that should be taken into account when using PT in Primary Education classrooms: properly preparing participating students with sound initial training; promoting student autonomy; handing over control to the pairs progressively; and recognizing the importance of the teacher role. The teacher role, their future role in the CL-organized classrooms, requires a willingness to cooperate and work in teams, as well as their predisposition to explain to the families the learning opportunities that every one of the roles developed can offer and involve them in their children's learning process.

Conclusions

The results of the questionnaire show that group B, who experienced CL, had a significantly higher improvement in the Expectancy scale and in the Index of CL use, than group A, who only received conceptual training. However, there were no significant differences between the two groups either in the Value or Cost scales. Therefore, the hypothesis of our study was partially met.

This result shows that CL conceptual training and experiencing in the university classroom have a direct impact on the improvement of expectations of CL success among university students and their predisposition to use it in the classroom in the future. This means that experiencing CL allowed students to perceive themselves as more self-efficient and with more skills to achieve success by taking into consideration the characteristics of context (their pupils, the classroom, and the support that this strategy gets from the educational institution). From the calculation proposed by Abrami et al. (2004), we can estimate that these prospective teachers will be more willing to use CL in the classroom. As these authors observed, the expectancy of success seems to do with the three factors (value, expectancy, and cost), the most relevant to distinguish those teachers that use CL and persist in time from those who do not. Teachers need to believe that they have the skills to successfully implement CL and that the context is appropriate for an effective use.

Nevertheless, those students experiencing CL did not get significant differences in the Value scales in comparison to the group that only received conceptual training. A possible interpretation for this result is that conceptual training seems sufficient for both groups to improve their perceptions of the value of CL.

There were no significant differences in the Cost scale either. According to Abrami et al. (2004), this factor is not very determining at the moment of distinguishing teachers that use CL from those who do not. That is, there may be teachers using it and saying that the cost is high, and others not using it for this very same reason. Thus, according to these authors, cost indicators are not a decisive element when implementing CL in the classroom.

The qualitative data from the CL experiencing situations (through PT) show what learning perceptions this group of students has, which probably may have allowed them to increase their expectations with regard to it and can account for the improvement detected in expectancy and index of use. Firstly, both groups of students (tutors and tutees) pointed at the learning opportunity offered by the roles developed during the implementation of PT as strength; which means, on the one hand, that the development of roles in a CL classroom promotes positive interdependency among individuals that cooperate and this relationship leads to joint learning (Topping, Duran, & Van

Keer, 2016). Dialogue, discussion and reflection between pair members are taken as elements that promote this learning. Moreover, they perceive that tutees' learning has to do with the nature of the interaction established between them, essentially the nature of the help received, which they define as close and adjusted to their needs. Part of the learning perceived by both roles (tutors and tutees) also refers to the materials used: whereas for tutors previously preparing the material to work on implies an effort, but at the same time also a good opportunity to learn, for tutees significant materials can be the key to learning. Likewise, tutees highlighted that experiencing PT in the university classroom is already a good way of learning the cooperative method and improving expectations concerning CL without explicitly detailing it.

Finally, the students themselves have been able to reflect on the key aspects to consider when implementing CL in the future that may increase their expectations regarding this method and therefore increase their use in Primary Education classrooms. Thus, they refer to their role in promoting student autonomy; to the need for sound initial training to achieve success in its development; to types of PT (fixed and reciprocal tutoring); the teacher's involvement when preparing the activity and revising materials, as well as their mediation and help to tutors with greater needs. In this anticipation of factors for a future CL use, students also identified supports, such as family participation. Finally, some elements that literature describes as arguments to support CL, such as PT goodness at including students in the classroom, are given by the students' own reflections from experiencing this method in the university classroom. In short, prospective teachers take it for granted that they are going to use CL in their classrooms and are aware of the factors to be considered for this implementation.

Obviously, this study has limitations: the reduced size of the simple, in a specific university and cultural context makes it difficult to generalize results. Nevertheless, it seems that the challenge that our educational systems have to introduce CL as a regularly used method in the classrooms requires conceptual training about this topic for prospective teachers, which can have an impact on the Value and Cost of CL. But what does seem to make a difference, increasing the possibilities that in the future teachers use CL in their classrooms, is the opportunities which we offer them to experience CL and reflect about it. Experiencing CL as a student is indeed what generates

expectations of success in its use. The combined use of conceptual training and experience of CL is what the Teacher Training education has to offer to the future teachers in order to help them to include CL in the future.

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References

Abrami, P.C., Poulsen, C., & Chambers, B. (2004). Teacher motivation to implement an educational innovation: Factors differentiating users and non-users of cooperative learning. *Educational Psychology, 24*(2), 201–216. doi:10.1080/0144341032000160146

Barr, R., & Tagg, J. (1995). From teaching to learning. A new paradigm for undergraduate education. *Change, 27*, 13-25.

Cohen, E.G, Brody, C.M., & Sapon-Shevin, M. (2004*). Teaching Cooperative Learning. The challenge for teacher education.* Albany, NY: State University of New York Press.

Creswell, J.W. (2015). *A concise introduction to mixed methods research*. Thousand Oaks (CA): Sage Publications.

Duran, D., Flores, M., Oller, M., Thomson-Garay, L., & Vera, I. (2016). *Reading in pairs. Peer tutoring for reading and speaking in English as a foreign language.* Barcelona: Horsori**.**

Gillies, R.M. (2007). *Cooperative Learning. Integrating theory and practice*. Thousand Oaks (CA): Sage Publications.

Gillies, R.M. (2014). Cooperative Learning: Developments in Research. *International Journal of Educational Psychology, 3*(2), 125-140. doi: 10.4471/ijep.2014.08

Gillies, R.M., & Boyle, M. (2008). Teachers' discourse during cooperative learning and their perceptions of this pedagogical practice. *Teaching and Teacher Education, 24,* 1333-1348. doi:10.1016/j.tate.2007.10.003

Hennessey, A. & Dionigi, R.A. (2013). Implementing cooperative learning in Australian primary schools: Generalist teachers' perspectives. *Issues in Educational Research, 23* (1), 52-68

Ishler, A.L., Johnson, R.T., & Johnson, D.W. (1998). Long-term effectiveness of a statewide staff development program on cooperative learning. *Teaching and Teacher Education, 14*(3), 273-281.

Johnson, D.W., & Johnson, R.T. (2009). An educational psychology success story: Social Interdependence Theory and Cooperative Learning. *Educational Researcher, 38*(5), 365-379. doi:10.3102/0013189X09339057

Johnson, D.W., & Johnson, R.T. (2014). Cooperative Learning in 21st Century. *Anales de Psicología*, *30*(3), 841-851.

Jolliffe, W. (2015). Bridging the gap: Teachers cooperating together to implement cooperative learning. *Education 3-13, 43*(1), 70-82. doi:10.1080/03004279.2015.961719

Kaendler, C., Wiedmann, M., Rummel, N., & Spada, H. (2015). Teacher competences for the implementation of Collaborative Learning in the classroom: A framework and research review. *Educational Psychology Review, 27*, 505-536. doi:10.1007/s10648-014-9288-9

Kagan, S. (2005). New Cooperative Learning, Multiple Intelligences and Inclusion. In J.W. Putnam, *Cooperative Learning and Strategies for Inclusion*. Baltimore, MA: Paul H. Brookes Publishing.

Koutselini, M. (2009). Teacher misconceptions and understanding of cooperative learning: An intervention study. *Journal of Classroom Interaction, 43*(2), 34-44.

Krol, K., Sleegers, P., Veenman, S., & Voeten, M. (2008). Creating cooperative classrooms: Effects of a two-year staff development program. *Educational Studies, 34*(4), 343-360. doi:10.1080/03055690802257101

Kyndt, E., Raes, E., Lismont, B., Timmers, F., Cascallar, E., & Dochy, F. (2013). A meta-analysis of the effects of face-to-face cooperative learning. Do recent studies falsify or verify earlier findings? *Educational Research Review, 10*, 133-149. doi:10.1016/j.edurev.2013.02.002

Lobato, C. (1998). *El trabajo en grupo. Aprendizaje cooperativo en secundaria*. Bilbao: Euskal Herriko Unibertsitatea.

Mayordomo, R.M., & Onrubia, J. (2015). *El aprendizaje cooperativo*. Barcelona: UOC.

Perrenoud, P. (2001). The key to social fields: Competencies of an autonomous actor. In D.S. Rychen & L.H. Salganik (Eds.), *Defining and Selecting Key Competences*. Göttingen: Hogrefe & Huber.

Prieto, J.A., Fernández, J., Cecchini, J.A., Méndez, A. & Méndez, D. (2016). Teachers' attitude and perception towards cooperative learning implementation: Influence of continuing training. *Teaching and Teacher Education, 59*, 438-445. doi:10.1016/j.tate.2016.07.020

Rué, J. (1998). El aula: un espacio para la cooperación. In C. Mir (Coord.), *Cooperar en la escuela. La responsabilidad de educar para la democracia*. Barcelona: Graó.

Ruys, I., Van Keer, H., & Aelterman, A. (2014). Student and novici teachers' stories about collaborative learning implementation. *Teachers and Teaching: Theory and Practice*, *20*(6), 688-703. doi:10.1080/13540602.2014.885705

Rychen, D.S., & Salganik L.H. (Eds.) (2001). *Defining and selecting key competences*. Göttingen: Hogrefe & Huber.

Sharan, S., & Sharan, S. (1994). *Handbook of Cooperative Learning Methods*. London: Praeger.

Sharan, Y. (2010). Cooperative Learning for academic and social gains: Valued pedagogy, problematic practice. *European Journal of Education, 45,* 2, 300-313. doi:10.1111/j.1465-3435.2010.01430.x

Sharan, Y. (2015). Meaningful learning in the cooperative classroom. *Education 3-13, 43*, 1, 83-94. doi:10.1080/03004279.2015.961723

Stainback, S., & Stainback, W. (1999). *Curriculum consideration in inclusive classrooms*. Baltimore: Paul H. Brookes.

Topping, K., Duran, D., & Van Keer, H. (2016). *Using peer tutoring to improve reading skills*. London: Routledge.

Veenman, S., van Benthum, N., Boosma, D., van Dieren, J., & van der Kemp, N. (2002). Cooperative learning and teacher education. *Teaching and Teacher Education,* 18, 87–103.

Wells, G. (1999). *Dialogic Inquiry.* Cambridge: The Press Syndicate of the University of Cambridge

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Revisiting the Antecedents of Social Entrepreneurial Intentions in Hong Kong

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Abstract

This study examined how empathy, moral obligation, social entrepreneurial self-efficacy, perceived social support, and prior experience with social problems are associated with social entrepreneurial intentions. Through a survey, a sample of 252 Hong Kong students was used for analyses. Factor analyses supported that the antecedents of social entrepreneurial intentions could be divided into dimensions of empathy, moral obligation, social entrepreneurial self-efficacy, perceived social support, and prior experience with social problems. Multiple regression analysis results indicated that perceived social support was the most prominent antecedent of social entrepreneurial intentions, followed by moral obligation, empathy, and prior experience with social problems. Notably, moral obligation was revealed to be negatively associated with social entrepreneurial intentions.

Keywords: Empathy, moral obligation, self-efficacy, social support, prior experience, social enterprises

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Revisitando los Antecedentes de las Intenciones de Emprendimiento Social en Hong Kong

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Resumen

Este estudio examinó cómo la empatía, la obligación moral, la autoeficacia empresarial social, el apoyo social percibido y la experiencia previa con problemas sociales están asociados con las intenciones empresariales sociales. A través de una encuesta, se utilizó una muestra de 252 estudiantes de Hong Kong. Los análisis factoriales respaldaron que los antecedentes de las intenciones empresariales sociales podrían dividirse en dimensiones de empatía, obligación moral, autoeficacia empresarial social, apoyo social percibido y experiencia previa con problemas sociales. Los resultados del análisis de regresión múltiple indicaron que el apoyo social percibido fue el antecedente más prominente de las intenciones empresariales sociales, seguido de la obligación moral, la empatía y la experiencia previa con problemas sociales. En particular, se reveló que la obligación moral se asociaba negativamente con las intenciones empresariales sociales.

Palabras clave: Empatía, obligación moral auto eficacia, apoyo social, experiencia previa, empresas sociales.

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Several problems in Hong Kong, such as the widening gap between the rich and poor, the ageing population, and the volatile economy, have facilitated the emergence of social enterprises. First, because of the emphasis on acquiring land- and development-related tax revenue, the high dependence on volatile financial and real estate industries has caused a highly skewed wealth distribution, so that wealthy people have become wealthier, whereas upward mobility for underprivileged people has decreased (Wissink, Koh, & Forrest, 2017). Hence, alleviating poverty is a major social aim of social enterprises in Hong Kong (Chan, Kuan, & Wang, 2011). Second, the Confucianism-based and collectivist culture of Hong Kong has made elderly people adopt a self-restrained attitude to avoid becoming a burden on the younger generation (Luo & Chui, 2016), thus resulting in the demand for social enterprises that would employ elderly people. Third, the financial crisis and economic downturn since 1997 have caused an increase in welfare expenditure as well as a decrease in government funding for nongovernmental organisations, which has engendered a change in welfare philosophy and the rise of social enterprises in the region (Ho & Chan, 2010).

Early research on 'social entrepreneurship' focused on the definitions and functions of the term (Dees, 1998; Mort, Weerawardena, & Carnegie, 2003). In recent years, scholars have been more interested in the theoretical development of the causes of the intentions towards forming a social enterprise (Hockerts, 2017; Mair & Noboa, 2006). Mair and Noboa (2006) suggested that empathy, moral judgement, social entrepreneurial self-efficacy, and perceived social support were the factors that could affect social entrepreneurial intentions. Hockerts (2017) extended the model of Mair and Noboa (2006) with the claim that prior experience with social problems could also predict social entrepreneurial intentions. These studies have provided a theoretical foundation for analysing social entrepreneurial intentions, but further inquiries are required to test its generalisability across contexts.

Scholars have emphasised the need for research on social entrepreneurship in Asia to provide a comprehensive picture about this concept in different cultural–geographical locations and in both internationally and locally embedded situations (Chell, Spence, Perrini, &

Harris, 2016; Liang, Chang, Liang, & Liu, 2017); this thus motivated the current study. The aim of this study was to analyse the antecedents of social entrepreneurial intentions and their influences on Hong Kong university students. The research population is targeted because they are the future generation of Hong Kong society, and with passion in exploring different career options including social entrepreneurship. This the authors' wish that the present study can shed lights on the educational needs in encouraging university students to establish social enterprises.

Literature Review

Social Entrepreneurial Intentions

Among the different conceptualisations of social enterprises, two major types are mentioned herein. The first type conceptualises social enterprises as nonprofit organisations (NPOs), adopting a market-oriented approach (Defourny & Kim, 2011). The second type regards social enterprises as profit-making enterprises whose objective is to address a social mission, and two features are involved, namely emphasising the economic value of the sustainability of social ventures and creating social value by providing solutions to social problems (Dacin, Dacin, & Tracey, 2011). Although the first conceptualisation provides a clear typology of social enterprises in East Asia, it cannot clearly elucidate or distinguish between social enterprises and NPOs. Hence, to distinguish social enterprises from NPOs, the second conceptualisation was adopted in this study.

Intentional behaviours can help to understand the reasons of entrepreneurs who plan to start up a venture before they search for opportunities (Krueger, Reilly, & Carsrud, 2000; Wang, Chang, Yao, & Liang, 2016). Although entrepreneurial intentions are defined as 'a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future' (Thompson, 2009, p. 676), social entrepreneurial intentions in this study are defined as 'the self-acknowledged conviction and preparation by a person who intends to establish a new social venture'. When considering the aforementioned studies, this study referred to Wang, Peng, and Liang's

(2014) scale of entrepreneurial intentions, which was based on the concepts of entrepreneurial conviction and preparation.

Early research provided the foundation for analysing social entrepreneurial intentions. Ajzen's (1991) theory of planned behaviour (TPB) has been widely adopted for understanding the antecedents of behavioural intentions, namely attitude towards the behaviour, subjective norm, and perceived behavioural control. On the basis of Ajzen's TPB, Mair and Noboa (2006) developed a theoretical framework of social entrepreneurial intentions and suggested that empathy, moral judgement, self-efficacy, and social support are the four antecedents of social entrepreneurial intentions; specifically, empathy serves as a substitute for attitude towards the behaviour, moral judgement as a substitute for subjective norm, self-efficacy as a substitute for perceived internal behavioural control, and social support as a substitute for perceived external behavioural control.

Hockerts (2017) extended Mair and Noboa's (2006) model by including one additional antecedent—prior experience with social problems. Moreover, two adjustments were made to Mair and Noboa's (2006) model. First, moral judgement was replaced by moral obligation, because moral judgement is more related to the reason why an individual feels morally obliged instead of the extent of that obligation (Hockerts, 2015). Second, perceived desirability and perceived feasibility were excluded from the model, because Hockerts (2017) determined them to not be separate factors in exploratory factor analysis. On the basis of the aforementioned studies, we tested the effects of five antecedents—empathy, moral obligation, social entrepreneurial self-efficacy, perceived social support, and prior experience with social problems—on the social entrepreneurial intentions of university students.

Antecedents of Social Entrepreneurial Intentions

Empathy is regarded as the 'natural ability to understand the emotions and feelings of others, whether one actually witnessed his or her situation, perceived it from a photograph, read about it in a fiction book, or merely imagined it' (Decety & Jackson, 2004, p. 71). Wood (2012) indicated that empathy is a key driver for supporting social ventures and stresses social

innovation. Additionally, empathetic entrepreneurs usually possess vital elements that are crucial for success, including the abilities to motivate and lead employees, assist employees in handling workplace stress, gain higher customer satisfaction through understanding customers' wants, and achieve higher innovativeness (Humphrey, 2013). Consequently, empathy, as one of the virtuous behaviours, is essential for a social entrepreneur to create social value for the organisation (Kraus, Filser, O'Dwyer, & Shaw, 2014).

Moral obligation is 'a decision-making subprocess that occurs after an individual makes a moral judgment and prior to establishing a moral intention' (Haines, Street, & Haines, 2008, p. 391). Strengthening moral obligations through increasing social awareness and responsibility can increase prosocial intentions and behaviour (De Groot & Steg, 2009), which is consistent with the aim of social entrepreneurs in achieving prosocial goals through starting up their ventures (Stephan, Uhlaner, & Stride, 2015). Kibler and Kautonen (2016) also claimed that higher self-evaluation of moral values might contribute to higher intentions to start up an enterprise. However, although ethical motives and moral responsibility are vital for social entrepreneurship, other motives may also involve less altruistic purposes such as personal fulfilment (Mair & Marti, 2006). This could explain why the positive association of moral obligation with social entrepreneurial intentions was not supported in Hockert's (2017) study.

Social entrepreneurial self-efficacy is regarded as 'a person's belief that individuals can contribute toward solving societal problems' (Hockerts, 2017, p.109). Higher entrepreneurial self-efficacy was found to be associated with a higher level of conviction and preparation for establishing a new venture, including higher self-confidence in addressing entrepreneurial tasks and higher engagement in writing a business plan or saving money for the business (Sequeira, Mueller, & McGee, 2007). In addition, potential social entrepreneurs in emerging markets were reported to exhibit high self-efficacy, because it was associated with a higher level of innovativeness, social impact, expandability, and sustainability of the venture (Urban, 2015). However, high self-efficacy may not always be beneficial for entrepreneurs. Entrepreneurs who are overconfident in dynamic environments may ignore or undervalue new information, which would in turn affect firm performance (Hmieleski & Baron, 2008).

The social support that entrepreneurs require is normally based on their social capital, because successful entrepreneurs rely on efficient networks (Mair & Noboa, 2006). As suggested by Baron and Markman's (2000) concept of social capital, defined as the actual and potential resources gained from being part of a social network, social capital gained through reputation and personal contacts is associated with more access to venture capitalists and potential customers (Chia & Liang, 2016). Additionally, social capital is paramount for greater knowledge acquisition, which is vital for newer firms (Yli-Renko, Autio, & Sapienza, 2001) when social entrepreneurs require knowledge of market demands and needs and social innovation to address social problems (Austin, Stevenson, & Wei-Skillern, 2006). Stam, Arzlanian, and Elfring (2014) added that connections to people of different backgrounds assist entrepreneurs of new firms to capture valuable resources to enhance firm performance.

Prior experience with social problems is regarded as people's practical experience in working with social-sector organisations, which can generate familiarity with such types of social problems (Hockerts, 2017). Prior experiences in self-employment and entrepreneurial education can be a trigger and a guide for potential entrepreneurs because such experiences nurture and encourage them to start up an enterprise (Keat, Selvarajah, & Meyer, 2011). Furthermore, such experiences seem to enable social entrepreneurs to understand what works and what does not work before engaging in a new venture, identify role models, and develop confidence in establishing an enterprise (Shumate, Atouba, Cooper, & Pilny, 2014). Khuong and An (2016) determined the positive association between prior entrepreneurial experiences and entrepreneurial intentions, demonstrating how entrepreneurship training and education might shape students' future professions.

Based on the aforementioned studies, the following five hypotheses were proposed:

H1. Empathy positively affects social entrepreneurial intentions of university students.

H2. Moral obligation positively affects social entrepreneurial intentions of university students.

H3. Social entrepreneurial self-efficacy positively affects social entrepreneurial intentions of university students.

H4. Perceived social support positively affects social entrepreneurial intentions of university students.

H5. Prior experience with social problems positively affects social entrepreneurial intentions of university students.

Method

Measures

A quantitative method involving the use of a survey was adopted in this study. To ensure reliable and valid measurement, scales from previous studies were adopted. Regarding the antecedents of social entrepreneurial intentions, the study results of Hockert (2017) were referred to. A total of 15 questions were adopted as survey questions for measuring the concepts of empathy, moral obligation, social entrepreneurial self-efficacy, perceived social support, and prior experience with social problems (three items for each dimension). In addition, with reference to the study of Wang et al. (2014), social entrepreneurial intentions were measured by conviction and preparation dimensions through eight items. The respondents answered on a 6-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Unanswered questions were treated as missing values.

Participants and Procedures

The survey used both online and offline channels. Students studying in Hong Kong and students who were born in Hong Kong but may not be currently studying in Hong Kong were our target respondents. A survey link was posted on Facebook fan pages for university students in Hong Kong. Moreover, the survey was distributed during classes at the Chinese University of Hong Kong. Consequently, a total of 303 questionnaires were received through both channels. Participation was voluntary, and anonymity was guaranteed. Before the execution of further analyses, 51 questionnaires with a high proportion of incomplete or contradictory viewpoints were excluded. Therefore, the total number of valid questionnaires was 252.

The sample descriptive statistics are outlined as follows: Female participants constituted 62.3% of the sample; 31.9% and 55.8% of the

participants were third-year and fourth-year (or higher) students, respectively, whereas the remaining participants were postgraduate students; 26.5% and 69.5% of the participants were aged 20 years or younger and 21–25 years, respectively, whereas the remaining participants were aged 26 years or older; and 83.3% and 10.0% of the participants were born in Hong Kong and mainland China, respectively. Regarding the areas of study, social science majors constituted the majority (45.6%), followed by business administration (31.7%) and science and engineering (9.9%). Principal component analysis with varimax rotation was performed to test the dimensionality of the concepts with the adoption of SPSS 23.0 statistical software. Multiple regression analysis was then performed to analyse the possible causal relationships between the variables.

Results

Exploratory Factor Analysis

The Kaiser–Meyer–Olkin (KMO) value of the antecedents of social entrepreneurial intentions was 0.88. Bartlett's test of sphericity was significant (χ^2 = 2225.70, df = 105, p < .001), implying that the data were appropriate for factor analysis. According to Table 1, the total variance explained for the five factors—empathy, moral obligation, social entrepreneurial self-efficacy, perceived social support, and prior experience with social problems—was 77.43%, revealing adequate validity. Hence, the study provided a scale for analysing the antecedents of the social entrepreneurial intentions of Chinese-speaking university students on the basis of Hockert's (2017) five determinants of social entrepreneurial intentions. A factor loading less than .3 is blanked.

Table 1.
Factor analysis of antecedents of social entrepreneurial intentions (n = 252)

	1.	2.	3.	4.	5.	*M*	*SD*	% of σ²
1. Empathy (α = .80)								12.62
I feel compassion for socially marginalised people.	.58	.47				4.51	.92	
When thinking about socially disadvantaged people, I try to put myself in their shoes.	.77					4.31	.84	
Seeing socially disadvantaged people triggers an emotional response in me.	.68	.48				4.41	.92	
2. Moral obligation (α = .90)								20.10
We are morally obliged to help socially disadvantaged people.	.36	.75				4.51	.93	
It is an ethical responsibility to help people less fortunate than ourselves.		.84				4.65	.87	
Social justice requires that we help those who are less fortunate than ourselves.		.84				4.58	.87	
3. Social entrepreneurial self-efficacy (α = .77)								12.44
Promoting environmental sustainability is something each of us can contribute to.		.49	.76			4.67	.84	
I am convinced that I personally can make a contribution to address environmental sustainability if I put my mind to it.			.76	.32		4.27	.96	
I could figure out a way to help solve the environmental issues.			.62	.47		3.80	.97	
4. Perceived social support (α = .82)								16.96
It is possible to attract investors for an organisation that wants to promote environmental sustainability.				.73		3.79	.99	
People would support me if I wanted to start an organization to help socially marginalised people.				.81		3.88	.96	
If I planned to address a significant environmental problem, people would back me up.				.87		3.77	.98	
5. Prior experience with social problems (α = .82)								15.31
I have volunteered or otherwise worked with social organisations.		.33			.75	4.49	1.05	
I have some experience working with social problems.					.88	3.81	1.11	
I know a lot about social organizations.					.79	3.97	1.00	
Total variance explained								77.43

The KMO value of social entrepreneurial intentions was 0.89. Bartlett's test of sphericity was significant (χ^2 =1678.27, *df* = 28, $p < .001$), implying that the sample was appropriate for factor analysis. According to Table 2, the total variance explained of the single factor was 68.26%, which showed adequate validity. Therefore, this study provided a tool for analysing social entrepreneurial intentions.

Table 2.
Factor analysis of social entrepreneurial intentions (n = 252)

	SEIs	*M*	*SD*	% of σ^2
Social entrepreneurial intentions (SEIs) (α = .93)				68.26
I wish to start a social enterprise that assist in alleviating environmental issues.	.67	3.73	1.11	
I have a preliminary idea for a social enterprise on which I plan to act in the future.	.83	3.19	1.12	
My professional goal is to become a social entrepreneur.	.90	2.82	1.04	
I am going to do anything to become a social entrepreneur.	.90	2.89	1.13	
I expect that at some point in the future I will be involved in launching an organization that aims to promote environmental sustainability.	.89	3.00	1.10	
I expect that at some point in the future I will be involved in launching an organization that aims to help disadvantaged groups.	.84	3.19	1.17	
I will act as a professional manager in getting involved in management of a social enterprise through promotion.	.86	3.05	1.12	
If I am going to inherit my family's business, I will plan to transform it into a social enterprise.	.69	3.12	1.15	

Note 1: Because only one component was extracted with eigenvalues greater than 1, factor loadings of social entrepreneurial intentions can be shown only through principal component analysis.

Multiple Regression Analysis

Multiple regression analysis was conducted to analyse the effects of the antecedents on social entrepreneurial intentions. According to Table 3, the unstandardised regression coefficients of empathy, moral obligation, perceived social support, and prior experience with social problems on social entrepreneurial intentions reached .278 ($p < .01$), −.282 ($p < .001$), .540 ($p < .001$) and .137 ($p < .05$), respectively. Because empathy, perceived social support, and prior experience with social problems were positively associated with social entrepreneurial intentions, H1, H4, and H5 were supported. Although moral obligation was significantly associated with social entrepreneurial intentions, the association was negative; hence, H2 was rejected. Furthermore, because social entrepreneurial self-efficacy did not reveal significant effects on social entrepreneurial intentions, H3 was rejected. The R^2 value of independent variables to social entrepreneurial intentions reached 33.2%, and the results of the F-test reached the level of significance ($p < .001$), implying that the regression model was appropriate.

Table 3.
Multiple regression analysis of the effects of the antecedents on social entrepreneurial intentions (n = 252)

Variables		Social Entrepreneurial intentions		
		Beta	*t*	*p*
	(Constant)	.712	2.145	.033*
Antecedents	Empathy	.278	2.941	0.004**
	Moral obligation	-.282	-3.303	.001***
	Social entrepreneurial self-efficacy	-.034	-.401	.688
	Perceived social support	.540	7.673	.000***
	Prior experience with social problems	.137	2.158	.032*
	R^2	.332		
	F	24.493		
	p	.000***		

* $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

Factor analysis revealed five dimensions of the antecedents of social entrepreneurial intentions, namely empathy, moral obligation, social entrepreneurial self-efficacy, perceived social support, and prior experience with social problems. This supports the factor structures suggested by Mair and Noboa (2006) and Hockerts (2017). However, social entrepreneurial intentions could not be divided into the two factors proposed by Wang et al. (2014). This is probably because their study focused on entrepreneurship rather than social entrepreneurship.

The regression model was determined to be appropriate. First, the *p* value of the overall *F*-test was significant, indicating that the variables of the antecedents of social entrepreneurial intentions did contribute to a superior model to the intercept-only model. Second, the independent variables (antecedents) accounted for 33.2% of the variance in social entrepreneurial intentions, signifying an acceptable explanatory power of the model.

Perceived social support was observed to be a vital factor in promoting social entrepreneurial intentions, and this is in agreement with the findings of Mair and Noboa (2006) and Hockerts (2017). Social entrepreneurs can never succeed alone (Mair & Noboa, 2006), especially in the collectivist culture of Hong Kong that emphasises social harmony and common goals (Oyserman, Coon, & Kemmelmeier, 2002). With a higher level of social support through connections with diverse individuals, entrepreneurs can obtain valuable resources to enhance firm performance (Stam et al., 2014). For example, social capital can contribute to attaining a high probability of success in crowdfunding (Zheng, Li, Wu, & Xu, 2014), which is an emerging financial source for social enterprises (Calic & Mosakowski, 2016). Accordingly, educators should assist students in developing social networks for public support for alleviating social problems (Mair & Marti, 2006) and in facing work-related stress in entrepreneurial ventures (Batjargal, Hitt, Tsui, Arregle, Webb, & Miller, 2013).

Empathy was also determined to be a significant factor for raising social entrepreneurial intentions, and this is in agreement with Hockerts' (2017) student samples. Because empathy is crucial for motivating employees and understanding customer needs (Humphrey, 2013), potential social entrepreneurs should initiate their business with a higher chance for success

because daily operations and profit earning are necessary for venture sustainability. Because a common objective of Hong Kong social enterprises is to mitigate poverty (Chan et al., 2011), emotional connections with those suffering are required to develop a prosocial identity for the commitment to act to relieve poverty (Miller, Grimes, McMullen, & Vogus, 2012). To foster student empathy in order to equip them to become social entrepreneurs, educators may consider conducting alternative class activities such as a poverty simulations to raise students' attention to social problems (Nickols & Nielsen, 2011) and engaging students in team sports, which allow them to cooperate with others and compassionately understand others' perspectives (Gano-Overway, 2014).

Prior experience with social problems was another significant factor contributing to social entrepreneurial intentions, and this is consistent with Hockerts' (2017) finding. This is also in line with how prior experience facilitates the generation of awareness and knowledge of the social aspects for opportunity development of social ventures (Corner & Ho, 2010), as well as with the importance of prior education and volunteering experience in forming a social venture (Shumate et al., 2014). Nevertheless, the effect of this variable is comparably weak. This is possibly because Hong Kong students may not have sufficient experience with social problems because of the pragmatic predisposition in learning (Kennedy, 2002). Fostering service-learning in universities, which integrates academic study with community service, could be a means of raising student responsibility for and awareness of social changes (Ngai, 2006). Another possible reason is that Hockerts (2017) believed that prior experience and social entrepreneurial intentions are mediated by the four antecedents proposed by Mair and Noboa (2006). How prior experience affects social entrepreneurial intentions warrants further inquiry.

Social entrepreneurial self-efficacy was not found to be associated with social entrepreneurial intentions in the present study, contradicting the findings of Mair and Noboa (2006) and Hockerts (2017). Hockerts (2017) found that social entrepreneurial self-efficacy was a dominant predictor of social entrepreneurial intentions in his two student samples. One explanation could be that Hockerts' (2017) respondents were from Western countries, characterised by an individualistic culture. Comparatively, our respondents

were strongly affected by the Oriental collectivist culture, where individual self-efficacy may be lessened by a person's perception of others' attitudes (perceived social norms) towards entrepreneurial intentions (Siu & Lo, 2013). By adopting Ajzen's TPB to predict entrepreneurial intentions in 12 countries, Engle et al. (2010) also reported that entrepreneurial self-efficacy had no significant associations with entrepreneurial intentions in their Chinese sample. The aforementioned studies provided the basis of our finding.

Notably, moral obligation was observed to be negatively associated with social entrepreneurial intentions, which contradicts the initial claim of Mair and Noboa (2006). However, one of Hockerts' (2017) investigated samples shared a similar negative result; therefore, examining the reasons behind it is worthwhile. One major argument is that the motive to engage in social entrepreneurship must not necessarily be morally obliged. The motive may involve less altruistic reasons including personal fulfilment, such as the desire for status, recognition, respect, and friendship (Bacq, Hartog, & Hoogendoorn, 2016; Mair & Marti, 2006). Another possible reason is that perception matters. For example, those who indicate that they do not strongly agree with the statement 'social justice requires that we help those who are less fortunate than ourselves' may actually perceive helping social minorities as insufficient for establishing social justice because other factors such as environmental and juvenile issues also matter.

This study has two limitations. First, we received a relatively high proportion of questionnaires from a single university, because the offline survey was distributed at the Chinese University of Hong Kong, which may not entirely represent the university population in Hong Kong. Second, because of the lack of established social entrepreneurial intention scales, we developed our own by modifying an existing entrepreneurial intention scale (Wang et al., 2014), which may require further adjustments to suit the social entrepreneurial context.

To address the aforementioned limitations, future studies can adopt a sample with students from different universities or even a sample of the Hong Kong public to examine how these variables are associated with social entrepreneurial intentions. Because Hockerts (2017) suggested that the four antecedents proposed by Mair and Noboa (2006) can mediate prior

experience and social entrepreneurial intentions, we aspire to evaluate whether similar results can be attained for Hong Kong respondents. In addition, a social entrepreneurial intention scale should be established to enrich the literature on social entrepreneurship and facilitate measurements.

Conclusion

In summary, the results indicate that empathy, perceived social support, and prior experience with social problems were positively associated with social entrepreneurial intentions, whereas no significant association was found between social entrepreneurial self-efficacy and social entrepreneurial intentions. Notably, moral obligation was revealed to be negatively associated with social entrepreneurial intentions.

These results lead to several evident contributions. First, this is the first study to adopt Hockerts' (2017) model and test it in an Asian context. Our results partially support the model and indicate promising directions for future research. Second, the present study not only enriches the theoretical base of social entrepreneurship but also illustrates the need to reconsider the roles of moral obligation and entrepreneurial self-efficacy. Third, our results have beneficial practical implications for entrepreneurial educators in terms of designing appropriate instructional strategies and developing meaningful projects to nurture student potential and empower their entrepreneurial careers.

Social problems in this globalised era are not limited to a single individual or community but affect everyone worldwide. These problems can only be relieved when public awareness and support exist. Additionally, social connections have become fundamental for completing different tasks; whether they are trivial or enormous, such as establishing a social enterprise, gaining social support for assistance has become crucial. Although individual virtues such as empathy are also critical to encourage entrepreneurs to start up social ventures, no one can succeed without others' help to maintain venture sustainability. Because university students are our society's future, they should be encouraged to treasure environmental resources and help disadvantaged people. Social ventures are a new means of alleviating social problems with social innovation. This article has merely

begun to emphasise the driving force for students' social entrepreneurial intentions, although future demand and potential for enriching the social entrepreneurship literature still exist.

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References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(6), 179-211. doi:10.1016/0749-5978(91)90020-T.

Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different, or both? *Entrepreneurship Theory and Practice*, *30*(1), 1-22. doi:10.1111/j.1540–6520.2006.00107.x.

Bacq, S., Hartog, C., & Hoogendoorn, B. (2016). Beyond the moral portrayal of social entrepreneurs: An empirical approach to who they are and what drives them. *Journal of Business Ethics*, *133*(4), 703-718. doi: 10.1007/s10551-014-2446-7.

Baron, R. A., & Markman, G. D. (2000). Beyond social capital: How social skills can enhance entrepreneurs' success. *The Academy of Management Executive*, *14*(1), 106-116. doi:10.5465/AME.2000.2909843.

Batjargal, B., Hitt, M. A., Tsui, A. S., Arregle, J. L., Webb, J. W., & Miller, T. L. (2013). Institutional polycentrism, entrepreneurs' social networks, and new venture growth. *Academy of Management Journal*, *56*(4), 1024-1049. doi:10.5465/amj.2010.0095.

Calic, G., & Mosakowski, E. (2016). Kicking off social entrepreneurship: How a sustainability orientation influences crowdfunding success.

Journal of Management Studies, *53*(5), 738-767. doi:10.1111/joms.12201.

Chan, K. T., Kuan, Y. Y., & Wang, S. T. (2011). Similarities and divergences: Comparison of social enterprises in Hong Kong and Taiwan. *Social Enterprise Journal*, *7*(1), 33-49. doi:10.1108/17508611111130149.

Chell, E., Spence, L. J., Perrini, F., & Harris, J. D. (2016). Social entrepreneurship and business ethics: Does social equal ethical? *Journal of Business Ethics*, *133*(4), 619-625. doi:10.1007/s10551-014-2439-6.

Chia, C.-C. & Liang, C. (2016). Influence of creativity and social capital on the entrepreneurial intention of tourism students. *Journal of Entrepreneurship, Management and Innovation*, *12*(2), 151-168.

Corner, P. D., & Ho, M. (2010). How opportunities develop in social entrepreneurship. *Entrepreneurship Theory and Practice*, *34*(4), 635-659. doi:10.1111/j.1540-6520.2010.00382.x.

Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social entrepreneurship: A critique and future directions. *Organization Science*, *22*(5), 1203-1213. doi:10.1287/orsc.1100.0620.

De Groot, J. I., & Steg, L. (2009). Morality and prosocial behavior: The role of awareness, responsibility, and norms in the norm activation model. *The Journal of Social Psychology*, *149*(4), 425-449. doi:10.3200/SOCP.149.4.425-449.

Decety, J., & Jackson, P. L. (2004). The functional architecture of human empathy. *Behavioral and Cognitive Neuroscience Reviews*, *3*(2), 71-100. doi: 10.1177/1534582304267187.

Dees, J. G. (1998). *The meaning of "social entrepreneurship"*. Stanford University: Draft Report for the Kauffman Center for Entrepreneurial Leadership.

Defourny, J., & Kim, S. Y. (2011). Emerging models of social enterprise in Eastern Asia: A cross-country analysis. *Social Enterprise Journal*, *7*(1), 86-111. doi:10.1108/17508611111130176.

Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., ... Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior.

International Journal of Entrepreneurial Behavior & Research, *16*(1), 35-57. doi:10.1108/13552551011020063.

Gano-Overway, L. A. (2014). The caring climate: How sport environments can develop empathy in young people. In K. Pavlovich & K. Krahnke (Eds.), *Organizing through empathy* (pp. 166-183). New York, NY: Routledge.

Haines, R., Street, M. D., & Haines, D. (2008). The influence of perceived importance of an ethical issue on moral judgment, moral obligation, and moral intent. *Journal of Business Ethics*, *81*(2), 387-399. doi:10.1007/s10551-007-9502-5.

Hmieleski, K. M., & Baron, R. A. (2008). When does entrepreneurial self-efficacy enhance versus reduce firm performance? *Strategic Entrepreneurship Journal*, *2*(1), 57-72. doi:10.1002/sej.42.

Ho, A. P. Y., & Chan, K. T. (2010). The social impact of work-integration social enterprise in Hong Kong. *International Social Work*, *53*(1), 33-45. doi:10.1177/0020872809348950.

Hockerts, K. (2015). Antecedents of social entrepreneurial intentions: A validation study. *Social Enterprise Journal*, *11*(3), 260-280. doi:10.5465/AMBPP.2013.16805abstract.

Hockerts, K. (2017). Determinants of social entrepreneurial intentions. *Entrepreneurship Theory and Practice*, *41*(1), 105-130. doi:10.1111/etap.12171.

Humphrey, R. H. (2013). The benefits of emotional intelligence and empathy to entrepreneurship. *Entrepreneurship Research Journal*, *3*(3), 287-294. doi:10.1515/erj-2013-0057.

Keat, O. Y., Selvarajah, C., & Meyer, D. (2011). Inclination towards entrepreneurship among university students: An empirical study of Malaysian university students. *International Journal of Business and Social Science*, *2*(4), 206-220.

Kennedy, P. (2002). Learning cultures and learning styles: Myth-understandings about adult (Hong Kong) Chinese learners. *International Journal of Lifelong Education*, *21*(5), 430-445. doi:10.1080/02601370210156745.

Khuong, M. N., & An, N. H. (2016). The factors affecting entrepreneurial intention of the students of Vietnam National University: A mediation

analysis of perception toward entrepreneurship. *Journal of Economics, Business and Management*, *4*(2), 104-111. doi:10.7763/JOEBM.2016.V4.375.

Kibler, E., & Kautonen, T. (2016). The moral legitimacy of entrepreneurs: An analysis of early-stage entrepreneurship across 26 countries. *International Small Business Journal*, *34*(1), 34-50. doi:10.1177/0266242614541844.

Kraus, S., Filser, M., O'Dwyer, M., & Shaw, E. (2014). Social entrepreneurship: An exploratory citation analysis. *Review of Managerial Science*, *8*(2), 275-292. doi:10.1007/s11846-013-0104-6.

Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, *15*(5), 411-432. doi: 10.1016/S0883-9026(98)00033-0.

Liang, C., Chang, C.-C., Liang, C.-T., & Liu, Y.-C. (2017). Imagining future success: Imaginative capacity on the perceived performance of potential agrisocio entrepreneurs. *Thinking Skills and Creativity*, *23*, 161-174. doi:10.1016/j.tsc.2016.12.007.

Luo, M., & Chui, E. W. T. (2016). An alternative discourse of productive aging: A self-restrained approach in older Chinese people in Hong Kong. *Journal of Aging Studies*, *38*, 27-36. doi:10.1016/j.jaging.2016.04.002.

Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, *41*(1), 36-44. doi:10.1016/j.jwb.2005.09.002.

Mair, J., & Noboa, E. (2006). Social entrepreneurship: How intentions to create a social venture are formed. In J. Mair, J. Robinson & K. N. Hockerts (Eds.), *Social entrepreneurship* (pp. 121-135). Basingstoke, U.K.: Palgrave MacMillan.

Miller, T. L., Grimes, M. G., McMullen, J. S., & Vogus, T. J. (2012). Venturing for others with heart and head: How compassion encourages social entrepreneurship. *Academy of Management Review*, *37*(4), 616-640. doi:10.5465/amr.2010.0456.

Mort, G., Weerawardena, J., & Carnegie, K. (2003). Social entrepreneurship: Towards conceptualisation. *International Journal of Nonprofit and Voluntary Sector Marketing*, *8*(1), 76-88. doi:10.1002/nvsm.202.

Ngai, S. S. Y. (2006). Service-learning, personal development, and social commitment: A case study of university students in Hong Kong. *Adolescence*, *41*(161), 165-176.

Nickols, S. Y., & Nielsen, R. B. (2011). So many people are struggling: Developing social empathy through a poverty simulation. *Journal of Poverty*, *15*(1), 22-42. doi:10.1080/10875549.2011.539400.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*(1), 3-72. doi:10.1037/0033-2909.128.1.3.

Sequeira, J., Mueller, S. L., & McGee, J. E. (2007). The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. *Journal of Developmental Entrepreneurship*, *12*(3), 275-293. doi:10.1142/S108494670700068X.

Shumate, M., Atouba, Y., Cooper, K. R., & Pilny, A. (2014). Two paths diverged: Examining the antecedents to social entrepreneurship. *Management Communication Quarterly*, *28*(3), 404-421. doi:10.1177/0893318914538561.

Siu, W. S., & Lo, E. S. C. (2013). Cultural contingency in the cognitive model of entrepreneurial intention. *Entrepreneurship Theory and Practice*, *37*(2), 147-173. doi:10.1111/j.1540-6520.2011.00462.x.

Stam, W., Arzlanian, S., & Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing*, *29*(1), 152-173. doi:10.1016/j.jbusvent.2013.01.002.

Stephan, U., Uhlaner, L. M., & Stride, C. (2015). Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies*, *46*(3), 308-331. doi:10.1057/jibs.2014.38.

Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, *33*(3), 669-694. doi:10.1111/j.1540-6520.2009.00321.x.

Urban, B. (2015). Evaluation of social enterprise outcomes and self-efficacy. *International Journal of Social Economics*, *42*(2), 163-178. doi:10.1108/IJSE-03-2013-0071.

Wang, J.-H., Chang, C.-C., Yao, S.-N., & Liang, C. (2016). The contribution of self-efficacy to the relationship between personality traits and entrepreneurial intention. *Higher Education: The International Journal of Higher Education Research*, *72*(2), 209-224. doi:10.1007/s10734-015-9946-y.

Wang, J.-H., Peng, L.-P., & Liang, C. (2014). Developing and testing the psychological variable, rural practice, and entrepreneurial intentions scales. *Review of Agricultural Extension Science*, *31*, 72-95.

Wissink, B., Koh, S. Y., & Forrest, R. (2017). Tycoon city: Political economy, real estate and the super-rich in Hong Kong. In R. Forrest, S. Y. Koh & B. Wissink (Eds.), *Cities and the super-rich: Real estate, elite practices and urban political economies* (pp. 229-252). New York, NY: Palgrave Macmillan.

Wood, S. (2012). Prone to progress: Using personality to identify supporters of innovative social entrepreneurship. *Journal of Public Policy & Marketing*, *31*(1), 129-141. doi:10.1509/jppm.11.060.

Yli-Renko, H., Autio, E., & Sapienza, H. J. (2001). Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. *Strategic Management Journal*, *22*(6-7), 587-613. doi:10.1002/smj.183.

Zheng, H., Li, D., Wu, J., & Xu, Y. (2014). The role of multidimensional social capital in crowdfunding: A comparative study in China and US. *Information & Management*, *51*(4), 488-496. doi:10.1016/j.im.2014.03.003.

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Working Relationally in and across Practices: A Cultural-Historical Approach to Collaboration

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Review

Edwards, Anne. (Ed) (2017). *Working Relationally in and across Practices: A Cultural-Historical Approach to Collaboration*. Cambridge University Press

The wealth of data compiled by Anne Edwards, one of the most renowned scholar in cultural-historical theory (University of Oxford) for more than 15 years of research on inter-professional work, has provided with an excellent background and knowledge to bring together the most influential contributions in this edited book. *Working Relationally in and across Practices: A Cultural-Historical Approach to Collaboration* gives value to the 'conceptual tools' on which this work is based and which are redefined as they are applied on practice. This compilation of timely and relevant cultural-historical theories provides guidance on how practitioners and professionals approach work and the difficulties they may face while working with others in a collaborative way with the aim of reflecting and discussing them. The book achieves this objective through the coherent union of real situations, such us offering a global response from the view of social workers, teachers and medicine in order to answer to a child's need.

The backbone of this work is based on three fundamental concepts, in which the author puts the emphasis throughout this collection. The first concept talks about the need to share knowledge to reach consensus after discussion and re-elaboration of ideas: relational expertise. The author links her reflections with the cultural-historical approach and the Vygotskyan theories. The second concept is born with two intentions; covering the gaps between the different professional spheres when solving a problem and finding spaces of interaction that favors a single understanding of the problem (through active listening and empathy): common knowledge. As a result of this, in order to achieve a satisfactory inter-professional work, a new fundamental knowledge emerges as a third concept: relational agency.

Leont'ev (1978), Vygotsky (1987) and Taylor (1991) are some of the main authors in which Edwards' line of work draws on. All of them point out that the individual particularity of each person conditions the profession,

since it is influenced by personal needs, emotions and feelings. Along with this reflection, the chapters of the book help us to unravel what the key features to achieve the bonds that push to create and maintain collaborative work to solve complex problems are. This is how, in short, the challenges can be addressed in a comprehensive and global manner.

This collection consists of three blocks. The first one focuses on the research of professional work, with reference to practical cases of both professionals and beneficiaries. In the second part, it delves into different studies that bring us closer to reality. In the latter part, special emphasis is placed on the design and methodology, closely linked to the three concepts.

Throughout these sections, the author and contributors points out that in the collaborative and inter-disciplinary work a horizontal structure without hierarchies must prevail. She emphasizes a horizontal relational work in which all people learn from all. This will have a positive influence, since this will increase knowledge, while increasing the commitment of the people involved.

In conclusion, we can affirm that this work has a positive impact on the formation of work teams, which need a collaborative way of solving problems and achieving objectives. Taking into account the individual value of each person at an integral level, and the treatment of all contributions as a wealth for the team, will lead to better professional practices and relationships. In the same direction, Anne Edwards and contributors allow us to determine future lines of research that deepen and reveal nuances about relational work. She encourages us to continue reflecting on practices and situations from this social perspective, concretely from research and responsible work with the intention of having greater social impact (Reale et al., 2017).

All the professional fields that wish to achieve the greatest effectiveness of their work teams will find aspects to reflect on in this work. Also, those interested in the collaboration and the exchange of ideas can see their formation enriched after reading this work. The considerations presented in the book can be attractive for professionals specialized in the field of sociology, psychology and education.

References

Leont'ev, A. N. (1978). Marxism and psychological science. In *Activity, Consciousness and Personality.* Upper Saddle River, NJ: Prentice Hall.

Reale, E., Avramov, D., Canhial, K., Donovan, C., Flecha, R., Holm, P., ... & Primeri, E. (2017). A review of literature on evaluating the scientific, social and political impact of social sciences and humanities research. *Research Evaluation.*

Taylor, C. (1991). *The Ethics of Authenticity.* Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1987). *The Collected Works of LS Vygotsky,* vol. 1, *Problems of General Psychology* (Eds. R. Rieber & A. Carton). New York: Plenum Press.

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