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How to cite:

Sheehy, Kieron and Budiyanto (2015). The pedagogic beliefs of Indonesian teachers in inclusive schools. *International Journal of Disability, Development and Education*, 62(5) pp. 469–485.

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Version: Accepted Manuscript

Link(s) to article on publisher's website:

<http://dx.doi.org/doi:10.1080/1034912X.2015.1061109>

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To cite this article: Kieron Sheehy & Budiyanto (2015) The Pedagogic Beliefs of Indonesian Teachers in Inclusive Schools, *International Journal of Disability, Development and Education*, 62:5, 469-485, DOI: 10.1080/1034912X.2015.1061109

The pedagogic beliefs of Indonesian Teachers in Inclusive Schools.

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The pedagogic beliefs of Indonesian Teachers in Inclusive Schools.

Abstract

This research explores for the first time the pedagogical orientations of Indonesian teachers in the context of inclusive education. A mixed methods approach was used for an analysis of questionnaire data from 140 teachers and qualitative interviews from 20 teachers in four inclusive schools. The findings suggest that, in general, the implicit orientation of teachers is social constructivist. This orientation is also reflected in their reported classroom practices. Although less common, more directive pedagogical approaches, appear to have an impact upon the flexibility of roles within two teacher inclusive classrooms. Whilst the number of disabled pupils within each class was a significant issue for interviewees, no pupils were deemed unteachable in their classrooms. Furthermore what is described by the teachers as a 'special pedagogy' typically entailed additional teaching time and modified assessments, and consequently could be framed as 'good teaching for all'. The questionnaires also contained responses from student and special school teachers and support the view that teachers' beliefs about inclusive pedagogy are mediated by experience and occupation.

Keywords

Inclusive pedagogy, special educational needs, teachers' beliefs, epistemology, Indonesian education, pedagogic orientations

Introduction

The beliefs that teachers hold about the nature of knowledge and how children acquire it, lie at “the very heart of teaching” (Kagan, 1992, p85), significantly shaping and directing classroom practices (Jordan & Stanovich, 2003) and pupils experiences. This is therefore an important issue to explore in understanding practice in inclusive classrooms, which has been seen internationally as a strategy to overcome educational barriers for all school-age children, including those with physical impairments and learning disabilities (Budiyanto, 2011).

The notion of inclusive education has a particular resonance for Indonesia, whose national motto is *Bhinneka Tunggal Ika* ('unity in diversity'). It also presents significant social and geographical challenges. Indonesia is the fourth largest country in the world, the most diverse multi-ethnic state and largest archipelagic nation (Direktorat Pembinaan Sekolloah, 2008). The Indonesian government has committed itself, within the worldwide Education for All (EFA) initiative, to give all Indonesian children at least nine years of basic education (Ramos-Mattoussi & Milligan, 2013). It has been relatively more successful in achieving its net enrolment ratio targets than other East Asian countries (UNESCO, 2014) and aims to implement inclusive education for all school-age children (Budiyanto, 2011) As part of this initiative the Indonesian Ministry of Education has developed inclusive 'pioneer' schools. By 2008, 925 existed (Sunardi, Yusuf, Gunarhadi, Priyono, & Yeager, 2011) and the number has continued to grow.

Inclusive education can, and has been, defined in different ways (Ainscow, 2012). At a general level inclusive pedagogy could be conceptualised as

“..how to extend what is ordinarily available in the community of the classroom as a way of reducing the need to mark some learners as different. [an approach] providing rich learning opportunities that are sufficiently made available for everyone, so that all learners are able to participate in classroom life” (Florian & Black-Hawkins, 2011, p14)

Because nations are developing their own inclusive education practices (Stangvik, 2010), at classroom level, inclusive pedagogies are likely to be constructed differently in different societies and cultures (Rix, Sheehy, Fletcher-Campbell, Crisp, & Harper, 2013).

In Indonesia the situation exists where teachers are working within schools which enrol pupils with learning disabilities and physical impairments, who previously would have been excluded from formal education (Sunardi et al., 2011). The pedagogy which is developing in these schools is under-researched, but there is evidence that few schools modify their instructional approaches to accommodate pupil diversity (Fearnley-Sander, Moss, & Harbon, 2004; Sunardi et al., 2011). If this lack of accommodation exists within the pioneer schools then there could be a mismatch between the inclusive rationale of these schools and the beliefs and practices of teachers within them.

There is a considerable body of research concerning teacher's beliefs about inclusive education. However there is a lack of research which foregrounds teachers' beliefs about inclusive pedagogy, as opposed to beliefs about teaching some disabled learners or specific categories of disability within a mainstream classroom (Avramidis & Norwich, 2002; Shevlin, Winter, & Flynn, 2012) or teachers'

beliefs about the inclusion of such groups (Martin, 2011; Murcia & Idárraga, 2013; Sermier Dessemontet, Morin, & Crocker, 2014), or the beliefs that particular teaching disciplines hold about teaching disabled students (Qi & Ching Ha, 2012).

Whilst there have been some outcome based studies which seek to derive 'inclusive pedagogical characteristics' (Sheehy et al., 2009), few studies ask teachers, who are working in inclusive situations, about their pedagogical beliefs concerning how *all* children learn in such situations (Florian & Black-Hawkins, 2011). The small number of studies which do examine the nature of teachers' epistemological beliefs in relation to inclusive education, typically do so from a perspective of looking at beliefs regarding how disabled students learn (Jordan, Glenn, & McGhie-Richmond, 2010; Jordan & Stanovich, 2003). Consequently, there is a paucity of studies within inclusive schools regarding teachers' attitudes and beliefs about inclusive pedagogy. One of the few was a qualitative study of 12 teachers (Schwartz & Jordan, 2011), which concluded that teachers' epistemological beliefs significantly influenced classroom practices within their sample, but highlighted the necessity for a larger scale investigations.

Exploring these attitudes and beliefs is important, as teachers are the facilitators of inclusion (Morley, et al., 2005) and their classroom practice is "...reflected in their knowledge, attitudes and beliefs about learners and learning" (Florian and Black-Hawkins, 2011, p826). Paying greater attention to their beliefs about how children learn in inclusive environments can make important contributions to our understanding of the complexity of teaching in inclusive environments (Borko & Putnam, 1996) and of the implicit conceptualisations of pedagogy and learning which direct and inform classroom interactions (Done, Murphy, & Irving, 2013).

This current research aimed to fill a significant research gap regarding inclusive teachers' beliefs about inclusive pedagogy and to explore, for the first time, the pedagogical orientations of teachers working in inclusive Indonesian schools.

Method

The research adopted a mixed methods approach. A quantitative questionnaire and series of qualitative semi-structured interviews were used to gather data from different groups of teachers. To improve the alignment of the two types of data, the questionnaire and interview prompts were anchored in a common connect (Harris & Brown, 2010). The research followed the ethical guidance of British Psychological Association (British Psychological Society, 2014) and was approved by the relevant university ethics committees.

The questionnaire items were derived from the Theoretical Orientation Scale (Hardman & Worthington, 2000), which examines theoretical beliefs about inclusion and how children learn. It consists of three sets of statements that elicit the respondents' Inclusion Orientation, Constructivist Orientation and Behaviourist Orientation. Since the scale was developed the social-constructivist perspective has become increasingly influential in classroom practice internationally (Long, Wood, Littleton, Passenger, & Sheehy, 2010). Therefore the scale was adapted by including an additional set of Social-Constructivist Orientation statements, which appeared to have face validity. The questions were translated into Indonesian and questions about each of the orientations were mixed together on the questionnaire form (see appendix 1)

In addition to the orientation questions some 'teacher variables' questions were included (Avramidis & Norwich, 2002). In compliance with ethical guidance (British Psychological Society, 2014), the researchers sought to collect data that could be justified and avoid the collection of unnecessary data. Whilst many studies have examined teachers age, gender and years of teaching their relationships with beliefs are inconsistent (Ahmmed, Sharma, & Deppeler, 2012; Avramidis & Norwich, 2002; Elhoweris & Alsheikh, 2006). Previous findings indicate that the following variables are influential: experience of teaching disabled children, contact with disabled people, occupation and relevant training (Ahmmed et al., 2012; Avramidis & Norwich, 2002; Elhoweris & Alsheikh, 2006), and these have not been investigated in relation to beliefs about inclusive pedagogy. Consequently, four 'teacher variables' questions were added to the start of the questionnaire (appendix 1, Questions 1–4).

Questionnaire participants

The questionnaire was completed by teachers, from across Indonesia, who attended either an East Java public event marking the commitment of a *kabupaten* (administrative regency) to inclusive education or an inclusive education seminar at *Universitas Negeri Surabaya* (UNESA). These two events were chosen because of the likelihood of attendance by teachers from inclusive schools. Paper copies of the questionnaire were placed at exits where teachers might pick them up and later return them to a collection box. A small number of questionnaires were also completed in two inclusive schools in Sidoarjo region and collected from the schools by the researchers. Responses were analysed using the Statistical Package for the Social Sciences (SPSS v20).

Of the 140 participants, the majority (62%) were student teachers, studying at University and also working in classrooms. The remaining participants were qualified teachers. The majority (83%) were mainstream teachers and student teachers, with 74 indicating that their schools were inclusive. The remaining 17% worked or were training in special education.

Interview participants

Twenty teachers, 14 women and 6 men, from 4 inclusive schools took part in the interviews.

Interview Method

A thematic analysis derived from Braun and Clarke's (2006) recommendations was carried out (McGillicuddy & O'Donnell, 2013). The interviews were transcribed and repeatedly interrogated to construct themes through three stages of coding (Langdridge, 2004). As this was a qualitative analysis, positivist notions of reliability and validity are replaced by a notion of trustworthiness, aiming to establish confidence in the findings (Golafshani, 2003; Lincoln & Guba, 1985).

Semi-structured interviews were conducted with 20 teachers in 4 inclusive schools in East Java. The interviews were conducted in both Indonesian and English and a translator was present at all interviews to assist where further clarification or explanation was required. The interviews varied in length between 15- 25 minutes and were recorded in situ.

The issues explored related to the how children learn, and also three areas highlighted in inclusive pedagogy research. One concerns, how teachers work together within inclusive classrooms (Cooper & Jacobs, 2011; Rix et al., 2013), which can reflect particular beliefs about pedagogy (Jordan et al., 2010; Sheehy et al., 2009). There has also been considerable debate about the second issue concerning whether particular children require special pedagogies (Lewis & Norwich, 2005) and the

effects of teachers' beliefs in the need for such pedagogies (Ring & Travers, 2005). Related to this was the third issue of whether some children are 'beyond' the pedagogies that can be utilized in a mainstream class (Norwich, 2008). The interviews were therefore guided by five general questions.

- *Could you tell me about your role in the school and any ways that you work with other teachers [in class]?*
- *Do you feel that all children learn in the same way?*
- *Do some children need a different way of teaching than others?*
- *In your work do you draw on any particular theories or approaches?*
- *Are there any children who you feel could not be taught within your class?*

The interview discussions were informal and explored the issues using a non-directive approach (Burman, 2001).

Systematic reviews of mixed methods research suggest that qualitative data should be analysed independently rather than solely to illustrate quantitative findings (Harris & Brown, 2010). The results from the questionnaire and interviews were therefore analysed independently prior to synthesis in the discussion.

Results

Questionnaire responses

Participants' occupation and experience

The number within the special educators group was small (n=25), however some comparative analysis was possible. Perhaps not surprisingly the special group reported greater experience of teaching disabled students ($p < 0.01$, Mann-Whitney), while 64% per cent of mainstream group (from inclusive schools) had such experience. A similar situation was found regarding personal contact with disabled people outside of their professional role ($p < 0.05$, Mann-Whitney). Here only 8 % of the special group had no such contact, in contrast to 29% of the mainstream group.

As might be expected the qualified teachers had significantly more experience of teaching disabled children than the student teachers ($p < 0.01$, Mann-Whitney) and also of contact outside of their professional work ($p < 0.01$, Mann-Whitney). In terms of beliefs about *where* children learn well (see Table 1) the qualified teachers were more likely to believe that children with special educational needs perform as well academically, when placed in mainstream schools. Conversely, the student teachers were more likely to believe that children with special educational needs learn most effectively in a specialist setting, alongside others who have similar needs.

Insert Table 1 about here.

Qualified teachers were more likely to believe that the teacher should act as a facilitator ($M=1.3$ $SD=0.06$) than the student teachers ($M=1.8$, $SD=0.06$, $t(138)=-2.6$, $p < 0.01$) and that children with

special educational needs learn most effectively when the staff to child ratio is high (qualified group $M=1.8$, $SD=0.79$; Student group $M=2.1$, $SD = 0.85$, $t(138)=-1.9$, $p<0.05$).

Response analysis

The data were reviewed in terms of carrying out an exploratory principal component analysis (PCA). The sample size of 140 although relatively small, is larger than the minimum number recommended by several authorities (MacCallum & Widaman, 1999), and an initial review of the responses produced a Kaiser-Meyer-Olkin score of 0.723. This suggested that distinctive, reliable factors might be extracted from the data (Field, Miles, & Field, 2012). This view was supported by Bartlett's test of sphericity ($p<0.001$), indicating sufficient correlation between the items to allow a principal component analysis (de Laat, Freriksen, & Vervloed, 2013).

A PCA with Varimax rotation was carried out. In an ideal situation each variable would be associated with a single factor (de Laat et al., 2013) and consequently, also informed by a data scree plot, values below 0.45 were omitted and 4 components were extracted. Component 1 accounted for 15.5% of the variance. Components 2, 3 and 4 accounted for variances of 11.3%, 7.8% and 5.7% respectively (see Table 2).

Insert Table 2 about here

Principal component 1 has a Cronbach's alpha of .785, indicating a satisfactory reliability coefficient (Bland & Altman, 1997). Principal components 2 and 3 contain fewer than 7 items and so Cronbach's correction factor (p) was applied (Cronbach, 1951; Spiliotopoulou, 2009) indicating acceptable internal consistency. Because of size (3 items and kurtosis of 4.87) a measure of internal consistency cannot be reliably estimated for Principal Component 4.

Principal Component 1: Learning is a social activity to which children have a right

Component 1 grouped the item 'All children have a right to education with their peers' with which 87% of teachers strongly agreed, and several items which expressed the belief that learning is an inherently social and collaborative activity. Figure 1 shows the frequency of the different responses to the questions identified in component 1.

Insert Figure 1 about here.

Principal Component 2: Correct behaviours in the right environment.

This component identifies associations between a belief that children do well in mainstream settings, that all teachers are capable of teaching children with special educational needs and statements which suggest a behavioural orientation. Beliefs about how well children do in inclusive settings were strongly divided, with 65% strongly/agreeing and 56% strongly/disagreeing. As indicated previously the participants' occupation significantly influenced this split.

Taken overall one can construct a position in which the majority of the sample felt that children learn through imitation (strongly/agreed with by 78% of participants) and being instructed in the correct responses (73% strongly/agree) and that this is something that all teachers can do ($M= 2.3$, $SD. = 1.3.$). However, beliefs about the possible outcomes of these processes in a mainstream setting are strongly associated with whether the participant was a student or qualified teacher.

Principal Component 3: Experience and the necessity for special places and teachers

This component reveals the strong association between participants' personal or professional experience and their beliefs about the necessity of special classes and teachers. Those with less experience were more likely to believe that children with special educational needs learn most effectively in specialist settings. The beliefs of more experienced teachers were more dichotomous. The majority (75%) of the 'Some' and 'No Experience' group were student teachers, in contrast to only 10% of the 'Lots' group. It is the beliefs of these two groups which underpin the component's negative association between teaching experience and a belief that children learn most effectively in specialist settings. The majority of these groups, 64% of the 'Some' and 68% of the 'No Experience' group, believe this to be the case. However, there is also clear division of opinion within the 'Lots' of experience group, where 55% disagreed with specialist settings statement and 45% agreed. This suggests therefore that it is too simplistic to suggest that teachers with the most experience would necessarily oppose specialist settings.

This association between 'All teachers are capable of teaching children with special educational needs in their classes' and the need for specialist settings suggests that these beliefs are not mutually exclusive. This might be the case if teachers saw special and mainstream pedagogies as essentially the same.

Principal Component 4: Special teachers and small classes

This component is comprised of three elements: a disagreement that children with special education needs do well in mainstream schools ($M= 2.99$, $SD = 1.1$), and agreement that these children need specialist teachers ($M= 1.7$, $SD=0.8$) and a high teacher: pupil ratio. ($M= 2.0$, $SD =0.8$)

Insert Figure 2 about here.

The division in responses to the mainstream placement statement has been noted previously and is evident here (see Figure 2). What is revealed in this component is the association between those who disagree that children with special educational needs

perform as well academically in a mainstream school and also hold beliefs that these children require a high ratio of specialist teachers.

Interview results

Five main themes emerged from the interviews.

Special Teaching is mostly extra time and a simpler assessment.

Across the interviews it was common for teachers to indicate that some children needed a special way of teaching. However, when asked about what this meant in terms of practice, different teachers described situations where children were given extra time to complete activities and less demanding assessment practices.

Give longer to do the same..class time is very flexible, this is what the children need.

....the four children here [*children with special needs in the teachers class*] have different needs. One cannot read, others cannot speak, so a different way of teaching is needed. -when I'm teaching the whole class I come closer to the children with special needs and explain again, more slowly and maybe again later, at a different time. I take more care to be precise and I check their understanding, ..more questions to check understanding, but it's the same curriculum.

Yes, they need different teaching if they have learning difficulties.. [*how is it different?*] ..if we have an assessment the students they have four options, the ['special'] students have two ...to make it easier [to see] which one is right..the curriculum is the same. The way they get their learning experience is the same but the different thing is how to assess

Teachers in one school used explicit differentiation of the curriculum

Now ..we have four kinds of curriculum.. .. so the curriculum fits with the student need..: duplication, modification, substitution and omission, ...

In a few cases special teaching was identified in relation to extra help with skills which were beyond the typical curriculum such as vocational or daily living skills. These might be taught in a resource room, which could also be used for speech therapy or as 'calming space' if needed. No teachers saw these as alternative classrooms. Children were felt to be best served educationally by spending nearly all their time in class with their peers. But the notion of special teaching was linked to having this additional space, even though the room was also used by other children.

...the assistant teacher ..she handle the resource room.. there she is a specialist

A dichotomy of approaches.

Across the interviews teachers described using two general approaches in their classrooms: cooperative learning and direct learning. These could exist within the same school, as indicated below.

We use the Jigsaw method [*a cooperative learning approach*] ...we ask students to observe, then each asks some questions, and [*in a group they*] get an overview

They get direct learning we interpret, explain things, we take the information profile of the student and work from this. We ask them to practice ..to do things directly.

These two approaches have been framed respectively as expressions of exogenous constructivism and dialectal constructivism in practice (Mercer & Lane, 1996) reflecting their relative degrees of teacher regulation versus student regulation of learning.

Equal, but different teachers

The practice in all the schools was to have two teachers in any class where children were identified as having special educational needs. In the interviews it was emphasised that both were teachers, rather than one being a teaching assistant. This equality was expressed in the many cases where teachers described how their roles were often interchangeable in the classroom, although the terms used to describe the 'other' teacher suggested difference.

Having two teachers works well and [*allows*] inclusive education to work well, the main and support teacher work in cooperation as a team

yes, sometime we do exchange roles, the regular teacher and special teacher swap..

However, this shared practice was not universal.

I teach the whole class, the other teacher teaches the four pupils (*SEN*). ..We never change roles.

We have different roles ..the other teacher usually she stands by the students with special needsbut sometimes take special needs children to the resource room ...

Bearing in mind that these were qualitative semi-structured interviews and so the interview responses were tightly bounded, there appeared to be an interaction between classroom role and teaching approach. All of the teachers who described using a direct learning approach also described a situation wherein the classroom roles were distinct and fixed.

All are welcome, but not at the same time.

All of the interviewees felt that all children were welcome in their class, and for some teachers there was a moral duty to be welcoming.

All are welcome, all children are like our own children...we must be [*welcome them*] the same

When asked about children who might be seen as 'difficult to include' (Shevlin et al., 2012), teachers responded in the same 'all are welcome' manner or gave examples of such children within their class or the school.

No, never [*not possible to teach*] ... yes, we have a deaf child in 3rd class and yes I have a [*blind child*] in 4th grade. All can be taught in [my] class

No teachers saw any special educational need or impairment as potentially disqualifying a child from their class, but all described limits in terms of the *numbers* of children who could be included. The practice in Indonesian inclusive schools is for a notional maximum of four children with special educational needs to be part of each class. However, teachers described how this number could be negotiated depending on the perceived severity of impairment or nature of the child's need. This could create a tension between not wishing to reject a particular child and the perceived limits to the number of children in the class.

I think the limit to number of children [*with special educational needs*] is between five and three, for example if we have a child with autism then the class should be smaller, ..they don't like it crowded, if autism will be fewer.

Up to now the limit is four,...more than five might make it difficult to handle. [*Speaking of a particular child with challenging behaviour*] the maximum should be two, but actually it's now four as [*we*] don't want to reject him.

Whilst all are welcome and all can be taught, the optimum number depends on the needs of the individual identified children.

An absence of pedagogical theory in reflections on practice.

It was rare for teachers to mention any theoretical perspectives, even when discussing the approaches they liked to use.

I use the Jigsaw method. I know how to teach and it works well, but I don't know the theory of it.

I do not use a theory in my [*Sports*] teaching.

A notable exception was two teachers who had attended a training course and described, but did not name, a 'humanist approach' This was gentle teaching, which focuses in developing unconditional and caring relationships to support vulnerable people (van de Siepkamp, 2010). A few teachers mentioned a theorist or theory of learning, such as Piaget or a pedagogue such as Montessori, but these were isolated names, 'pulled from the air' rather than being associated with their own teaching practices or their beliefs about how to teach.

Discussion

These two sets of data combine to give several insights into the pedagogical beliefs of Indonesian teachers in inclusive educational schools and also factors influencing the construction of inclusive pedagogy.

The quantitative data suggested that an orientation towards learning as an essentially social and collaborative activity existed. Although there are many different types and formats of this approach (Dollard & Mahoney, 2010), it involves learners working together in small groups to tackle academic content. The pedagogy of the approach is rooted in a Vygotskian social-constructivist paradigm (Murphy, Grey, & Honan, 2005) and uses cooperative teaching of heterogeneous groups, with a

specific intention to “increase social diversity and interaction “ (Dollard & Mahoney, 2010, p 2). It is a mainstream classroom approach, which has been assessed with regard to its ability to enhance learners’ knowledge in range of curriculum areas (Evans, Walker-Bolton, & Gable, 2012) and pupil diversity (Murphy et al., 2005). Principal component 1 links teacher’s beliefs in the social production of knowledge, in which the teacher acts a facilitator, and children’s right to be educated with their peers. This orientation seems to correspond with the reported use of cooperative learning approaches and a unanimous stance that all children are welcome. The social constructivist orientation may be the implicit stance of many of the teachers and is in accord with outcome based reviews of effective classroom practice in other countries (Nind, Wearmouth, Collins, & Hall, 2004). There appears to be a correspondence between the quantitative and interview data in terms of beliefs about pedagogy and classroom practices. The interviews suggest that the more directive approaches either necessitated, or created, ‘fixed’ differences in the roles of the two teacher model. Whilst team teaching has been acknowledged elsewhere as good practice in inclusive classrooms, teacher role flexibility is seen as vital (Ó Murchú, 2011).

Although there may be a broad consensus about *how* children learn, there appeared to be more variation regarding *where* and with *whom* children should learn. In contrast to the apparently inclusive, social constructivist narrative is the belief that children with special educational needs learn best in a specialist setting, alongside others with the similar needs. This was expressed by 70% of the student teachers, with qualified teachers opinions being divided (48% agree; 52% disagree). This division reflects a longstanding debate about the relative merits and efficacy of special placements (Avramidis & Norwich, 2002) and the need for a special pedagogy (Shevlin et al., 2012). In the interviews it became clear that the nature of these special practices and differences was relatively mundane. Typically this meant giving some children simpler and perhaps repeated instructions, longer to complete the same tasks as their peers and assessing them on fewer targets and at a lower level. Children might require support to engage with classroom activities but the way in which they learned was seen as the same as their peers, perhaps mediated in some way for example with sign language or large print materials. For most of the interviewees their special approach was cooperative learning and what was being labelled as special and different could be seen as part and parcel of everyday good teaching.

The belief in grouping children by category of need or support emerged most strongly, in the questionnaires, from student teachers, and supports previous research that experience influences beliefs about inclusion (Ahmmed et al., 2012). In contrast no interviewed teacher saw the necessity for a special placement or thought there were children who could not be taught in their class.

A limitation of seeking to understand the pedagogic beliefs of teachers working in inclusive schools is this is a small sample of a much larger population. Teaching practices for children with special educational needs vary significantly between schools within relatively local regions (Rix et al, 2013) and, in a nation as diverse as Indonesia, moving beyond these regions can encompass significant cultural, economic and geographical diversity. With this caveat however there was some concurrence between the questionnaire sample (from across Indonesia) and the Surabaya region interviews.

International research suggests that teachers do not readily relate their classroom practice to an explicit theory (Rix et al., 2013) and the interview data supports this view. An issue therefore

emerges as to the extent to which these implicit beliefs about how children learn inform the way in which the classroom techniques are used. This is an important issue to explore in the future as, for example, how teachers conceptualise cooperative learning can significantly affect how successfully their pupils learn (Murphy et al., 2005).

Another issue relates to the use of differentiation. There is a possible tension here between cooperative approaches, which set out to provide learning opportunities for all, and the extent to which the explicit differentiation for some learners creates a situation that “works for most learners existing alongside something ‘additional’ or ‘different’ for those (some) who experience difficulties.” (Florian & Black-Hawkins, 2011, p826). There may be a future risk of developing practices that hamper inclusive pedagogies. A related issue for future research is whether the beliefs of student teachers about inclusive pedagogy, which we have implied as reflecting a lack of experience, are actually due to changes in how they have been trained and the extent to which this training might promote ‘additional’ and ‘different’ educational discourse. This is an important question for future research to consider as inclusive education is developed in Indonesia.

Conclusion

This is the first time that the pedagogic beliefs of teachers in Indonesia’s inclusive schools have been investigated. The teachers’ beliefs, and reported inclusive classroom practices, appear to be broadly social-constructivist in nature, dissimilar from the pedagogy previously reported in non-pilot schools (Sunardi et al., 2011) and facilitated by flexible-role two-teacher classrooms. The qualitative data suggests that more directive pedagogies might be associated with less role flexibility and, in Florian and Black-Hawkins (2011) terms, a less inclusive experience for some learners.

As other teachers around the world, the broader sample of Indonesian teachers’ beliefs suggest dilemmas about the ‘where and who’ aspects of teaching children with diverse needs (Lewis & Norwich, 2005; Norwich, 2008), and similarly indicate that these beliefs are strongly mediated by experience and occupation. However, the majority see all children learning in the same way and ‘teachable’ by all teachers, linked to a belief to children’s right to education with their peers. In general a belief was found that was all teachers can teach all children, which is a strong basis for supporting the development of inclusive classroom practice.

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Appendix

Pedagogy Questionnaire (adapted from Hardman and Worthington, 2000)

1. What is your current occupation?

Please read the statements on the left and then circle the number that best describes how you feel about the statement.

2. Do you have experience of teaching disabled children?	Lots	Some	No Experience		
3. Do you have personal contact with disabled people outside of your professional role?	Lots	Some	No Experience		
4. Have you received training related about how to implementing inclusive education in the classroom.?	Lots	Some	No Training		
For the questions below 1=Strongly agree, 2=agree, 3= neither agree or disagree, 4=disagree, 5=strongly disagree					
5. Children with special educational needs learn most effectively in a specialist setting, alongside others who have similar needs	1	2	3	4	5
6 All teachers are capable of teaching children with special educational needs in their classes	1	2	3	4	5
8. Helping children to talk to one another in class productively is a good way of teaching.	1	2	3	4	5

9. I believe it is possible that all children, regardless of their disabilities, can be taught together	1	2	3	4	5
10. Children with special educational needs require specialist teachers	1	2	3	4	5
11. Children with special educational needs learn most effectively when the staff to child ratio is high	1	2	3	4	5
12. All children have a right to education with their peers	1	2	3	4	5
13 Children learn best through collaborative activities	1	2	3	4	5
14 Meaningful learning takes place when individuals are engaged in social activities	1	2	3	4	5
15 Children learn through exploration	1	2	3	4	5
16 Children are born with the processes enabling them to construct their world as a result of experience	1	2	3	4	5
17 Children learn most effectively when the teacher takes the role of facilitator	1	2	3	4	5
18 Development is the child's continual effort to adapt to their environment	1	2	3	4	5
19 Learning can be defined as the social production of knowledge.	1	2	3	4	5
20 Children with special educational needs perform as well academically, when placed in mainstream schools	1	2	3	4	5
21. Children are born with a biologically determined intellectual potential that remains constant throughout their life	1	2	3	4	5
22. Learning occurs when the child is praised rather than criticised	1	2	3	4	5
23. Learning is facilitated by providing activities that engage the child and encourage problem solving	1	2	3	4	5
24. Children learn through imitation of others	1	2	3	4	5
25. Children learn through instruction in correct responses	1	2	3	4	5

26. Children learn through a process of trial and error	1	2	3	4	5
28. Environmental stimulation determines the level of intellectual growth	1	2	3	4	5
29. Learning is essentially a social activity	1	2	3	4	5
30. An individual's intellectual level can be altered through instruction	1	2	3	4	5
31. Learning occurs through language based activities	1	2	3	4	5

Table 1. Responses of qualified and student teachers to two questionnaire statements (arithmetic means and standard deviations in brackets) (N =140)

Statement	Qualified Group	Student Group	Level of significance (two-tailed)
Perform as well academically, when placed in mainstream schools	2.4 (1.4)	3.2 (1.1)	p< 0.001
Learn most effectively in a specialist setting, alongside others who have similar needs.	3.0 (1.1)	2.4 (1.1)	p=0.03

Table 2. Principal Component Analysis (N=140)

	Principal Component			
	1	2	3	4
Meaningful learning takes place when individuals are engaged in social activities	.723			
Children learn best through collaborative activities	.696			
Children learn through exploration	.671			
All children have a right to education with their peers	.634			
Children are born with the processes enabling them to construct their world as a result of experience	.586			
Learning can be defined as the social production of knowledge	.497			

Learning is facilitated by providing activities that engage the child and encourage problem solving	.488			
Helping children to talk to one another in class productively is a good way of teaching	.486			
Children learn most effectively when the teacher takes the role of facilitator	.483			
Learning occurs when the child is praised rather than criticised		.645		
Development is the child's continual effort to adapt to their environment		.599		
Learning occurs through language based activities		.591		
Children learn through imitation of others		.551		
Children with special educational needs perform as well academically, when placed in mainstream schools		.521		-.473
Children learn through instruction in correct responses		.497		
Do you have personal contact with disabled people outside of your professional role?			.699	
Do you have experience of teaching disabled children?			.637	
All teachers are capable of teaching children with special educational needs in their classes		.470	-.576	
Children with special educational needs learn most effectively in a specialist setting, alongside others who have similar needs			-.479	
Children with special educational needs require specialist teachers				.701
Children with special educational needs learn most effectively when the staff to child ratio is high				.461

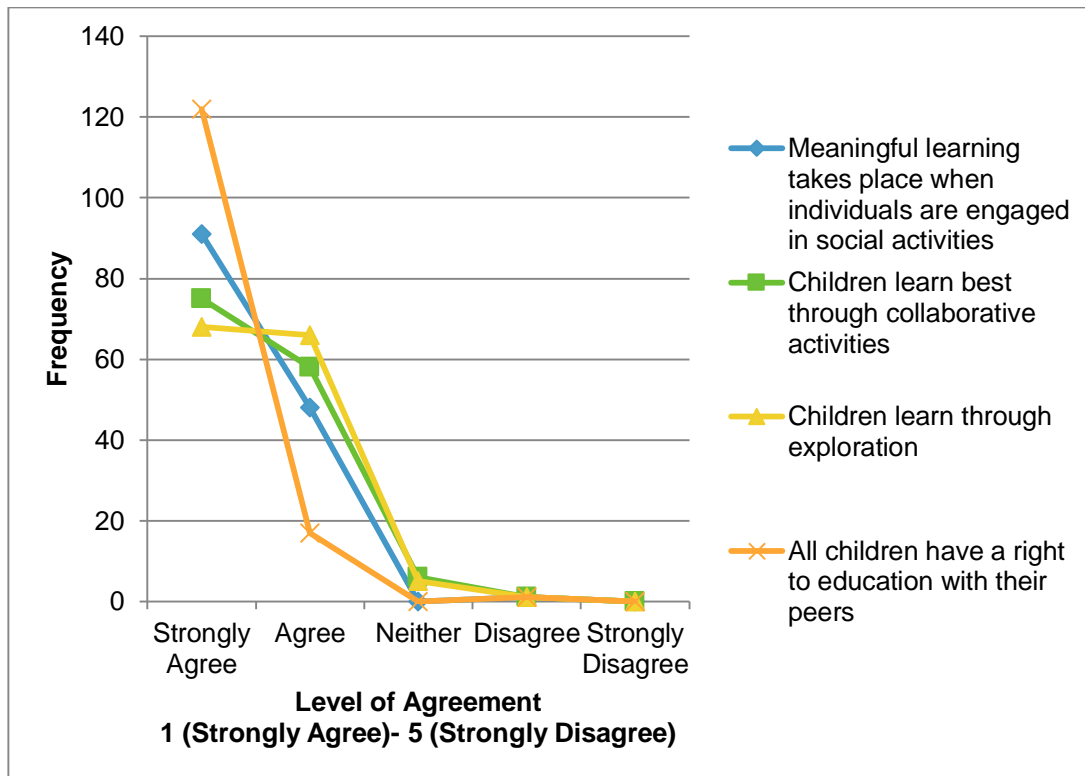


Figure 1. Teachers' responses to individual questions in Principal Component 1. *Learning is a social activity to which children have a right* (N=140).

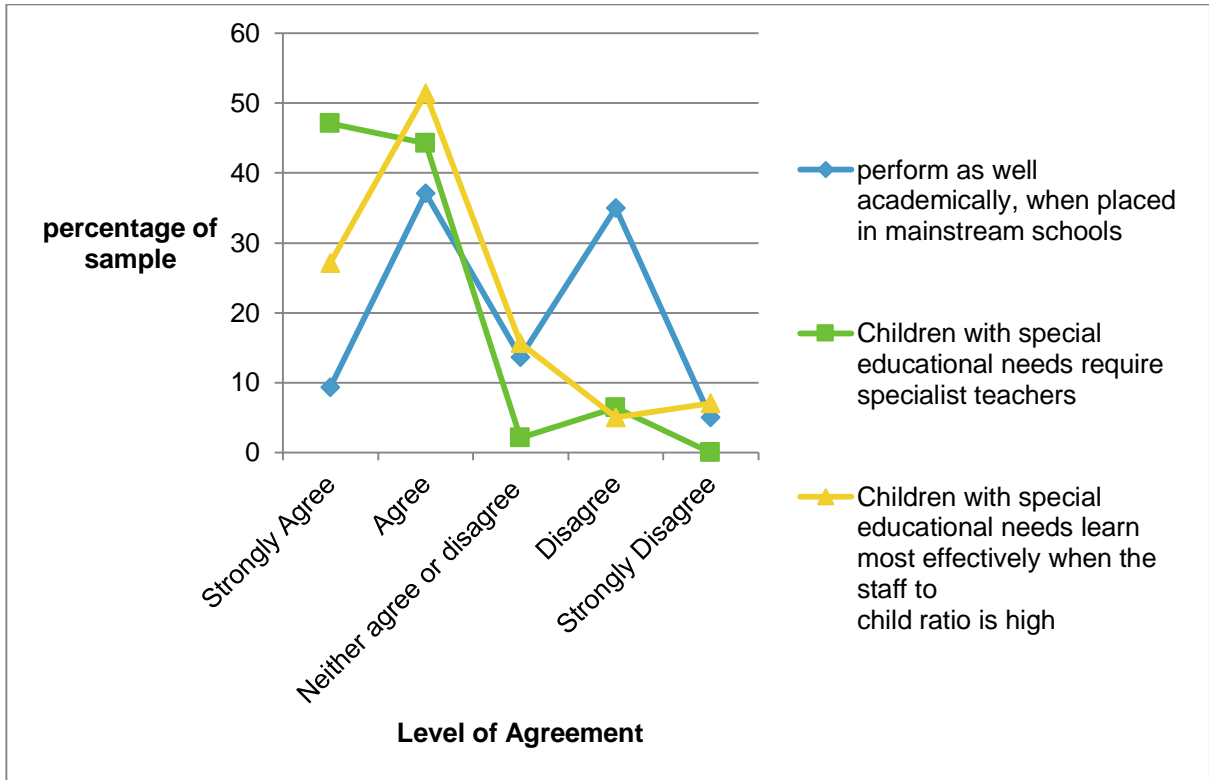


Figure 2. Teachers' responses to individual questions in Principal Component 4: *Special teachers and small classes* (N=140).