RESEARCH IN BRIEF - PROGRESS UPDATE REPORT

Measuring Pupils' Attitudes toward Inclusive Education

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In 2015 the authors were awarded the Division of Educational and Child Psychology Research Award to undertaken a pilot study investigating the measurement of children's attitudes towards inclusion.

Schools across three London boroughs were approached and asked to take part in the study, with participants recruited across eight schools using a convenience sample. Of the schools that agreed to take part, all teachers agreed to involve their class in the study, and no parents/carers chose to opt their child out of the study.

Participants included 383 children in school years 3 to 6. Children were aged 7-11 years (mean age = 9.31 years; SD = 1.12), with a roughly even distribution of males and females (49.6% male; 48% female; 2.3% undisclosed). Data for a further 23 children was collected but discarded due to missing demographic data.

A 34-item 'pilot' questionnaire was developed to explore children's attitudes towards peers with Special Educational Needs (SEN), taking into account the cognitive, affective and behavioural components of children's attitudes. The Children's Attitudes towards Inclusion Scale (CAIS) provided a modern alternative to other available scales which were outdated (Vignes et al., 2008), and used terminology reflecting current inclusive policies.

Confirmatory factor analysis was used to test the appropriateness of a three-factor model of cognitive, affective and behavioural components of children's attitudes. Results from this analysis revealed that this three-factor model was not a satisfactory fit for the data, and so a principle component analysis was conducted to identify a more suitable model. This

resulted in the exclusion of 23 items from the original CAIS, with 11 items remaining for a three-component solution.

The 11-item scale was found to have good reliability, and accounted for a substantial amount of variance (60.42%). Three distinct components, each adding appropriate variance to the model, were identified from the PCA, which include (1) '*children's feelings about and willingness to interact with children with SEN*', (2) '*children's cognitive beliefs about the experiences of children with SEN*', and (3) '*children's social distance from children with SEN'.* Components 1 and 2 complement those of the CATCH (Rosenbaum et al., 1986), which consisted of a two-factor model with an aggregated affective and behavioural intent component, along with a cognitive component of children's attitudes. Rosenbaum et al. (1986) suggest that the aggregated component for affective and behavioural intent may be due to the difficulty in separating one's intentions to behave in a certain way from one's feelings about this behaviour, which also seems a fitting interpretation for the items that load on the first component for the CAIS. The items loading onto component 3 indicated children's more passive attitudes towards children with SEN, and was labelled as 'social distance' to represent how comfortable children are about certain interactions with children with SEN, which complements the Social Distance from Handicapped Persons Scale (Hazzard, 1983). A key difference between items loading onto this component and those loading onto component 1 is that component 3 reflects children's attitudes around situations or interactions with children with SEN that have not been chosen by the child, whereas component 1 reflects more of an active engagement and affective opinion about interactions with children with SEN.

Whilst six CAIS items loaded onto component 1, only a couple of the CAIS items loaded onto components 2 and 3, resulting in less satisfactory internal consistency for these components. This is likely to be due to the large number of items that were not retained by

the PCA, and so further work is required in developing more suitable items for loading on components 2 and 3. It may, therefore, be advisable to use the full CAIS scale in its current 11-item form, rather than the three separate components identified through the PCA.

Initial analyses conducted using average CAIS scores for the 11-item scale indicated no gender differences in children's attitudes towards inclusion, with both boys and girls showing similarly positive attitudes towards children with SEN. However, results from the analyses suggested that attitudes towards inclusion improved across year group, with children in Year 6 showing significantly more positive attitudes compared to those in Years 3 and 5. It is possible that children's attitudes towards the inclusion of peers with SEN may improve as they understand more about SEN with age and experience. Indeed, age has been shown to affect children's understanding about the consequences faced by peers with SEN, with younger children more negative than older children about social and cognitive consequences for children with physical disabilities, and about physical consequences for children with non-specific learning difficulties (Smith & Williams, 2001). Likewise, children with a greater understanding about SEN have more adaptive solutions for including peers with SEN within activities (Nikolaraizi et al., 2005), and those who have more experiences of interacting with those with SEN hold more positive attitudes towards peers with SEN (Vignes et al., 2009). However, to establish whether the current study's finding of an improvement in attitudes towards inclusion with age is related to a greater understanding about SEN, further research is required.

Results from the current study found children's schools to have a significant impact on the attitudes that they espoused, with children from three schools showing significantly less positive attitudes towards inclusion than children from the other schools. While data was not collected on teachers' attitudes or school environment, and so it cannot be established that these are the cause of this difference between schools, results from this study indicate that

schools can influence the attitudes that children hold towards peers with SEN. Further research is warranted to explore which school-related factors are critical. It is possible that children from these schools may have been influenced by their class teachers' attitudes towards inclusion, or by whether their school ethos and environment was conducive to supporting children with SEN (for example, Cairns & McClatchey, 2013; Nowicki & Sandieson, 2002; Vignes et al., 2009).

Limitations

Some limitations may have contributed to the small number of items retained following the PCA. For instance, there was a large amount of missing data from the questionnaires, with complete data only available for 67% of the sample. Whilst there was no clear pattern to the missing data, there were significantly higher rates of omission for two items from the questionnaire, suggesting low acceptability of these items, or that these items were not well understood by the children. These items included, '*children with special needs want teachers and classmates to give them special treatment*', and '*children with special needs want lots of attention from teachers*'. It is possible that the wording of these items was not optimal, with children perhaps finding it difficult to predict what peers with SEN 'want'.

Qualitative feedback was actively sought from children at the end of each session by asking for oral or written comments. A number of children wrote comments on the questionnaires indicating their wish for a 'maybe' or 'it depends' option for certain items of the CAIS. Thus, it is possible that the binary options of 'yes' or 'no' may have been too prescriptive, and may explain the large amount of missing data across the questionnaire, with children unwilling to commit to a firm 'yes' or 'no' for the items. Indeed, a number of children noted that their response depended on the individual child with SEN, rather than being applicable to all children with SEN. Therefore, whilst a simple 'yes' and 'no' response

was considered ideal for the age range of the children recruited for this study, it appears that this was too restrictive a scale for assessing complex attitudes about inclusive education. In addition, and despite our description of what was meant by SEN, children showed some confusion as to what was meant by this term and so a clearer introduction may be required for future research in this area.

Next steps

Having developed the CAIS and run the pilot study to assess the suitability of the items, the next stage in the research is to revise and optimise the scale. A revision of the scale, using a 5-point Likert-type scale that allows for a middle-value response, may be necessary to minimise the amount of data lost due to children feeling unable to commit to a binary scale of 'yes' or 'no'. To ensure that this is still suitable for the young age group, the revised scale may benefit from the use of happy/sad faces or emoji as anchor points.

In addition, more items will be developed to generate the full version of the CAIS, including more items that are suitable for component 2 and component 3. Prior to generating the full version, focus groups will be held to confirm the preliminary interpretation of the three components of the CAIS, and to adapt these as necessary. Ideally, the full version of the CAIS will be built up to 18 items, with 6 items loading on each of the three components. To achieve this, items from the original 34-item scale will be revisited, with suitable items revised to fit components 2 and 3 and, where necessary, new items will be developed. Focus groups will be utilised at this stage to discuss the wording of the new items and to ensure their fit to the three components, prior to further piloting of the revised CAIS.

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