

Institution: The Open University		
Unit of Assessment: C23 Education		
Title of case study: <i>Signalong Indonesia: a new tool for inclusion</i>		
Period when the underpinning research was undertaken: 2003-2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Kieron Sheehy	Professor	1992-present
Jonathan Rix	Professor	2002-present
Melanie Nind	Senior Lecturer	1994-2004
Kathy Hall	Professor	1995-2007
Janice Wearmouth	Senior Lecturer	1995-2006
Helen Kaye	Associate Dean	1989-present
Period when the claimed impact occurred: December 2013 to November 2020		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact		
<p>Sheehy and colleagues have developed a long-standing and effective partnership with Indonesian researchers, schools and the Ministry of Special Education to undertake a sustained programme of research and development that has developed a new context-sensitive keyword signing system, 'Signalong Indonesia', designed to improve communication methods within inclusive classrooms. This has had an impact on: i) practitioners and the delivery of professional services by transforming whole school approaches to keyword signing in five schools in East Java and Bali, transforming the inclusive practices and beliefs of 3,418 teachers and university personnel across 33 provinces in Indonesia and influencing the inclusive practices of one university ii) social welfare by improving the educational inclusion of 3,322 pupils in East Java.</p>		
2. Underpinning research		
<p>As part of its commitment to the world-wide 'Education for All' initiative, the Indonesian government aims to give all children a minimum of nine years of education. This includes children who previously might have been excluded or segregated, the majority of whom are pupils with severe learning disabilities who have communication support needs. However, relatively few Indonesian schools modify their instructional approaches, or provide resources, for such children. It is essential therefore, that a communication method is developed that can support Inclusive Indonesian classroom pedagogy. Without this, children will remain excluded from learning. Therefore, the focus of the research reported in this case study has been to inform the development of a system-wide training approach to a novel communication method that creates inclusive everyday classroom practice. The impact reported in this case study derives from two phases of research concerning inclusive pedagogy, approaches to communication and factors that influence the adoption of communication methods within inclusive classrooms. Taken as whole, the body of research underpinning the impact within Indonesian inclusive classrooms has shown that: effective inclusive classrooms prioritise social engagement, particularly signing within pedagogy. An effective whole-school approach to facilitating communication is keyword signing and the effective introduction of such a communication method in inclusive classrooms is influenced by a range of factors including attitudes, the pedagogical and epistemological beliefs of teachers and culture. Thus, professional development initiatives, aimed at promoting a communication approach based on keyword signing, need to take these factors into account.</p> <p>The first phase of research took place in the UK. Between 2003 and 2004 a range of systematic reviews of classroom practices were undertaken. One review sought to answer the question: "What is the nature of whole class, subject-based pedagogies with reported outcomes for the academic and social inclusion of pupils with special education needs?" From an initial 134 studies, 11 were synthesised and the results highlighted the need for teaching approaches that prioritize social and flexible modes of engagement [O1]. Alongside the systematic review work, in a study in which 59 staff members from six different schools across the South West of</p>		

England were interviewed about their views regarding Makaton (a signing approach to engagement and communication), it was found that teachers, even within the same school, could hold conflicting views about the use of keyword signing. When translated into classroom practice, these attitudes and beliefs significantly affected children's access to a communication approach that was likely to benefit them [O2].

The second phase of research took place in Indonesia in collaboration with Professor Budiyo and Khofidotur Rofiah from the State University of Surabaya in East Java and the Department of Special Education in Indonesia. Between 2012 and 2013, views regarding appropriate communication options for Indonesian classrooms were sought from seminars and workshops with 325 teachers, interviews with 20 teachers in seven schools and questionnaire data from 80 teachers. This research, alongside literature reviews, and visits to UK educational organisations to observe communication approaches in use were used to inform decisions about the type of approach to develop. Results indicated that the most effective approach for Indonesian schools was to develop a new keyword signing approach, using three features of the Signalong UK model. This work led to the development of a keyword signing system called Signalong Indonesia (2013-2014). A series of studies were conducted with teachers from pilot schools, those who had attended Signalong Indonesia training, and more broadly with teachers from different regions of the country. This was to ascertain whether Signalong Indonesia was a valid approach to use in Indonesia and the factors that impact upon the success of a keyword signing approach such as Signalong Indonesia within Indonesian classrooms. One study examined the attitudes towards a keyword signing-based approach to inclusion by analysing semi-structured interviews (conducted with 20 teachers in seven schools in East Java) and questionnaires (from 69 teachers and educational professionals more widely located across Indonesia). The results suggested that teachers hold broadly positive attitudes to the possibility of signing, but that there was a complex relationship between social stigmatisation, the nature of signing and a possible classroom pedagogy [O3]. Another study surveyed 267 Indonesian teachers, working in inclusive, special, and regular schools, regarding their epistemological and pedagogical beliefs. The survey included questions on whether the use of signing was stigmatising. Principal Components Analysis revealed that teachers' epistemological beliefs, rather than their type of school or experience, were the significant predictor of their beliefs about inclusive education [O4, O5]. Finally, a mixed methods approach was used to collect data about teacher's beliefs and experiences regarding Signalong Indonesia. 32 teachers completed questionnaires, followed by interviews with 9 teachers. Three themes emerged: understanding the nature of Signalong Indonesia, the stigmatisation of signers and its reporting by teachers. The findings suggested that a new model of teacher training is needed, along with revised classroom materials, in order to support inclusive practices within schools and avoid developing isolated 'signing teachers' [O6]. These findings were used to inform the development of teacher training workshops.

3. References to the research

The underpinning research has been funded by the Training and Development Agency and The British Council. O2-5 were peer reviewed.

- O1. Sheehy, K., Rix, J., Collins, K., Hall, K., Nind, M., & Wearmouth, J. (2009) A systematic review of whole class, subject-based pedagogies with reported outcomes for the academic and social inclusion of pupils with special educational needs. In: Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, IOE.
<http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2429&language=en-US>
- O2. Sheehy, K., & Duffy, H. (2009) Attitudes to Makaton in the ages of integration and inclusion. *International Journal of Special Education*, 24,2, 91–102.
<http://www.internationalsped.com/issues.cfm>
- O3. Sheehy, K., & Budiyo. (2014) Teachers' attitudes to signing for children with severe learning disabilities in Indonesia. *International Journal of Inclusive Education*, 18,11, 1143-1161. <https://doi.org/10.1080/13603116.2013.879216>
- O4. Sheehy, K., & Budiyo. (2015) The Pedagogic Beliefs of Indonesian Teachers in Inclusive Schools. *International Journal of Disability, Development and Education*, 62,5, 469-485.
<https://doi.org/10.1080/1034912X.2015.1061109>
- O5. Sheehy, K., Budiyo, Kaye, H., & Rofiah, K. (2019) Indonesian teachers' epistemological beliefs and inclusive education. *Journal of Intellectual Disabilities*, 23,1,39-56.

<https://doi.org/10.1177/1744629517717613>

O6. Budiyanto., Sheehy, K., Kaye, H., & Rofiah, K. (2018) Developing Signalong Indonesia: issues of happiness and pedagogy, training, and stigmatisation. *International Journal of Inclusive Education*, 22, 5, 543–559. <https://doi.org/10.1080/13603116.2017.1390000>

4. Details of the impact

SignAlong Indonesia is an approach to embedding inclusion in classrooms that includes a novel keyword signing system, a manual and a framework for training in the use of the system that focuses on teachers' beliefs. The beneficiaries of the impact of the SignAlong Indonesia approach are: i) schools in Indonesia (inclusive, special and mainstream), the teachers within those schools and their pupils (both with and without communication needs) ii) lecturers and other university staff at the State University of Surabaya. The pathways to impact emanating from the research conducted by Sheehy and colleagues have received significant internal funding and support from the Department of Special Education in Indonesia, indicating a government commitment to promoting inclusive classrooms. This support began with the funding of the 'Inclusive Indonesian Classroom' project, between December 2013 and 2014, which resulted in the development of the Signalong Indonesia keyword signing system. In this project the initial vocabulary and training manual (December 2013) was largely based on British Sign Language (from Signalong UK), and then, through extensive piloting, a new vocabulary and original communication system was developed which incorporated signs from Bahasa Isyarat Indonesia (BISINDO, a widely used Deaf community language) and Sistem Isyarat Bahasa Indonesia (SIBI, created by the Indonesian Department of Education and Culture). Forty teachers from 33 of Indonesia's 34 provinces were trained in the resulting 'Signalong Indonesia' and two ambassador schools were supported. The latter became centres of training and sites that sought to develop best practice. In addition, the Special Education Department of the Indonesian Ministry of Education supported nation-wide implementation of the materials by printing and disseminating multiple copies of the Signalong Indonesia manual to schools. Other examples of the commitment of the Indonesian government to the Signalong Indonesia include: i) The Indonesian Director of Special Education debating inclusive education and issues relating to Signalong Indonesia with Kieron Sheehy and a live audience in a one-hour current affairs programme called OutLook (SBO TV, 2014) and a public launch of the Signalong Indonesia manual by a government Minister, in January 2015, which was widely covered in the Indonesian media [C1]. Indonesia comprises 17,000 islands and is divided into 34 provinces (East Java is the second most populated province with around 39 million inhabitants). With the support of the Department of Special Education, the Signalong Indonesia research has had an impact on **practitioners and the delivery of professional services** by 1) transforming whole school approaches to keyword signing in schools in East Java and Bali 2) transforming the inclusive practices and beliefs of teachers across Indonesia and 3) influencing the inclusive practices of university personnel across 33 provinces in Indonesia; and **social welfare** by 4) improving the educational inclusion of school pupils in East Java.

1. Transformed school-wide approaches to inclusive education in East Java and Bali

Engaging with the Signalong Indonesia approach has transformed approaches to inclusion within a chain of four schools in Surabaya, East Java that caters for over 250 children. The chain is called "Galuh Handayani" and it consists of a Kindergarten, an Elementary school, a Junior High School, and a Senior High School. In 2015, 35 school staff undertook 3 days of training in how to use Signalong Indonesia, delivered by Sheehy and colleagues [C1]. Testimonies from the principals of each of these schools indicate that they were influenced to adopt a whole school approach to using Signalong Indonesia following engagement with the training. This approach means that all students (with or without communication difficulties) have been taught to use Signalong Indonesia and that Signalong Indonesia is implemented in every school activity including ceremonies, school assembly and scout groups. The head teachers talk of how this policy has improved the quality of the education within the schools [C1]. In 2018, 183 students were using Signalong Indonesia either in the school or at home [C1]. Galuh Handayani has also become a centre of training, seeking to develop best practice beyond its own classrooms. As part of this activity they have set up a website onto which they have uploaded a range of video

clips documenting examples of their school-wide practice which includes using *Signalong Indonesia* in music and science lessons [<https://signalongindonesia.org/>]. In 2019, Sheehy and colleagues were invited to work with the Bali School for the Deaf which is a national centre of excellence in Indonesia and children from across Indonesia attend. This collaboration began with the training of 40 teachers and has resulted in the school committing to use *Signalong Indonesia* in their religion and music education curriculum. The head teacher writes that this work is of national importance given the government directive for classrooms to be inclusive and is enabling them to “*create materials that reflect the diversity of Indonesian society and develop effective and innovative ways of teaching*” [C2].

2. Transformed the inclusive classroom beliefs and practices of teachers across Indonesia

Between December 2013 and January 2020, The *Signalong Indonesia* team have delivered a range of training events for 898 schoolteachers (who collectively teach around 22,629 students) and 2,520 university teachers across 33 provinces [C1, C3]. Survey results indicate being trained to use *Signalong Indonesia* has positively changed teachers practice and that they hold positive beliefs about the value of keyword signing for all children. In a 2019 survey of 105, 104 teachers (mostly from East Java) indicated that were using *Signalong Indonesia* in their classrooms and 103 indicated that they had been trained to use *Signalong Indonesia*. 74% indicated that *Signalong Indonesia* had changed their teaching; This change was seen as positive by 85%. This positive impact appears to be where it has helped them to teach and communicate with children with special educational needs [C4]. In addition, using *Signalong Indonesia* in their classroom has transformed how teachers at Galuh Handayani communicate with children with special needs, teach difficult concepts to children with communication difficulties and promote active engagement of students in the classroom. For example, one teacher from the Senior High School testifies: “*Signalong Indonesia can also improve the quality of education services, because Signalong Indonesia helps me to communicate and socialise with students*” [C1]. Another Galuh Handayani teacher shares: “*If I communicate orally, I just use 50% of my power [...] but if I use Signalong together with oral I use my full power- 100%*” [C5].

3. Influenced the inclusive practices of the State University of Surabaya (UNESA)

At the State University of Surabaya, *Signalong Indonesia* has been implemented across a volunteer programme within the university called PSLD. PSLD is made up of volunteers from various departments in the university, who support disabled university students in their study. Between 2017 and 2019, 280 UNESA lecturers; 120 members of the D/deaf community and 430 volunteers have been trained to use *Signalong Indonesia* through the PSLD programme. The Vice President for Planning and Partnership at UNESA testifies that the embedding of *Signalong Indonesia* within PSLD activities has “*significantly supported UNESA’s drive to be an accessible university, able to educate a diverse student group*”. In addition, staff from UNESA’s special education department routinely train schoolteachers in Surabaya (and beyond) how to use *Signalong Indonesia*. Between 2017 and 2019, 1,720 teachers received training [C6].

4. Transformed the experience of inclusive classrooms for pupils in East Java

Teachers and parents have spoken of how the use of *Signalong Indonesia* has also transformed the learning experience of Indonesian pupils with special educational needs. Testimonies from teachers at Galuh Handayani School describe how using *Signalong Indonesia* has increased the confidence and engagement of children with special educational needs: “*In addition to learning in the classroom Signalong Indonesia is also applied in the school assembly, scout and extracurricular activities. And that makes me happy, through Signalong Indonesia special needs students can be more confident when communicating with other students*” [C1]; “*There is a real difference. When the teachers and students weren’t using Signalong the students were less excited. Some of them rested their heads on the table and daydreamed. But with Signalong there was no daydreaming, no sleeping because they were using their bodies*” [C5]. Case

studies presented on the Galuh Handayani Signalong Indonesia website [https://signalongindonesia.org/] reveal that the active and passive communication skills of four 7th grade pupils with autism improved over a period of 12 months following training in how to use Signalong Indonesia. In addition, their science assessment scores improved by 40%. Parents of pupils at Galuh Handayani have spoken of how the use of Signalong Indonesia has increased the confidence and social interaction of their children: *“He has Asperger’s Syndrome, usually my son is very shy and sits at the back. But last week when I came to the class, he is much more confident. He was sitting at the front and could now understand well because of the signing”* [C5]. Children have also spoken of how using Signalong Indonesia has helped them *‘learn things for myself’* and *‘understand things better’* [C5]. Interviews with nine teachers from two inclusive schools in two different cities in East Java indicate that using Signalong Indonesia has made learning engaging and fun [C7]: *“The key thing is that they learned together [...] using Signalong [...] has made the learning moment, learning process be more enjoyable [...] it is easy for disabled and non-disabled students to learn together”*; *“If they give happiness to the students, they will receive the lesson more easily, they will remember easily what the teacher gives to them”*; *“The students felt happier [...] So, it is very good even when it is used by able-bodied students”*. In 2019, members of the Inclusive Indonesian Classroom designed a story book (called Big Book) that could be used by mainstream kindergarten teachers. In keeping with the Signalong Indonesia method, a single sign was created for each page of the story. Five kindergarten teachers were trained how to use the Big Book stories with Signalong Indonesia. An evaluation involving five kindergarten classes (one control class that used the Big Book but not the signs) and 83 children (with and without communication needs) revealed that use of Signalong Indonesia improved understanding of the story. Correct answers to five comprehension questions were 82%, 92% 75%, 77% and 79% in the Signalong Indonesia classes compared to 5% in the Big Book only class. Teachers also reported that using Signalong Indonesia was fun for the children, made learning easier and that the children were more engaged [C8]. In addition, in September 2020, copies of three Big Books with Signs (plus a training manual) were sent to 274 kindergarten teachers. In November 2020, a three-hour online training workshop was attended by 70 kindergarten teachers. In December 2020, an evaluation questionnaire was sent to all participating teachers. Results from 168 responses indicate that 98% were using SignAlong Indonesia with their pupils (3,322 pupils in total) and that 38% used the Big Books once per week, 18% used them two or three times per week and 10% used them four to five times per week. 98.5% indicated that using the Big Books had changed the way they teach and 98.4% said they planned to use the approach with other teachers. Furthermore, 89.1% indicated that use of the Big Books supported inclusion of disabled children in their classrooms; 90.5% reported that using the Big Books made learning more fun for the children and 97% reported that their use helped the children remember the stories [C9].

5. Sources to corroborate the impact.

- C1.** Report. Impact on school-wide approaches to inclusive education in East Java; the inclusive classroom beliefs and practices of teachers across Indonesia and the experience of inclusive classrooms for pupils in East Java. Independent Indonesian consultant.
- C2.** Letter. Impact on school-wide approaches to inclusive education in Bali. Headteacher of Bali School for the Deaf.
- C3.** Training Event data. Impact on the inclusive classroom beliefs and practices of teachers.
- C4.** Survey data. Impact on the inclusive classroom beliefs and practices of teachers.
- C5.** Video. Impact on the inclusive classroom beliefs and practices of teachers & experience of inclusive classrooms for pupils. Principals, teachers, and parents of Galuh Handayani.
- C6.** Letters. Impact on inclusive practices of the State University of Surabaya. Vice President and lecturer.
- C7.** Journal Article. Impact on experience of inclusive classrooms for pupils. Budiyanto; Sheehy, Kieron; Kaye, Helen and Rofiah, Khofidotur (2018). Developing Signalong Indonesia: issues of happiness and pedagogy, training and stigmatisation. *International Journal of Inclusive Education*, 22(5) pp. 543–559. <https://doi.org/10.1080/13603116.2017.1390000>
- C8.** Evaluation data. Impact on experience of inclusive classrooms. UNESA researchers.
- C9.** Evaluation data. Impact on experience of inclusive classrooms. UNESA researchers.