Peer to Peer Multiliteracies: a new concept of accessibility

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Abstract

In our project "Peer to Peer Deaf Multiliteracies: research into a sustainable approach to the education of deaf children and young adults in the Global South (2017-2020) (ESRC/DFID) we are working with deaf learners, teachers and research assistants in India, Ghana and Uganda. Our overall ethos is a commitment to "Real Literacies" (Street, 2012) whereby we work to identify and support learners' already existing authentic interests and literacy practices. Our pilot project, "Peer to Peer Deaf Literacies" identified that this approach led to learner gains beyond the original focus of improvements in their English reading and writing. Engagements indeed led to measurable gains in English literacy skills for learners, but also to increased capacities in multiliteracies including Sign Language skills, metalinguistic competencies, use of online communication technologies and there was evidence of a deepening of the range of interests accessible through literacies.

In the current project we have made use of this awareness of deaf multiliteracies from the beginning. Rather than view accessibility for deaf learners as a question of the provision of additional features to existing content we have built it in to project design. This is exemplified by identification of needs within the target deaf communities, through our workshops with deaf leaders, and carried on via recruitment of deaf staff, with full acceptance of the community's culture and communication preferences (e.g. WhatsApp groups with embedded videos). Most importantly, the content itself is co-designed by deaf learners and their tutors. The UK team provides training, technical infrastructure and theoretical framing.

We propose that this approach is a novel in terms of conceptualising accessibility in participatory terms and also that it brings multiliteracies fully into current reconceptions of the positive roles inclusion of deaf communities can bring to theorising multimodalities (Kusters, Spotti, Swanwick, & Tapio, 2017).

Introduction: Needs and opportunities for deaf education in the Global South

Deaf children continue to be marginalised in many communities of what we will call the Global South (while recognising many controversies of this and other terms). Deafness is stigmatised in many communities to the extent that the experience of our project has been to recognise that occasionally deaf children are abandoned because of their deafness. As the recent World Federation of the Deaf position paper asserts, "Deaf children have historically faced many barriers to quality education, including a denial of quality education in sign language which has led to a denial of their rights" (Murray et al., 2016: 1). High quality education through sign language can lead to equality in thriving and achievement with any other groups in society, that is towards the fulfilment of potential with no limits. As the position paper's key points concludes,

Hanemann, (2015), taking a broad overview of United Nations declarations, conventions and publications over recent decades, places literacy as an underpinning right, needed for the achievement of so much in terms of social participation. "Furthermore, as a social practice, literacy has the potential to enhance people's capability and agency for the pursuit of freedom, and to empower them to interpret and transform their life realities" (Hanemann, 2015: 297).

Our approach

Real literacies

Our approach to curriculum development departs from conventional second language teaching methods with uses of textbooks and related exercises. In our project, we draw on an approach called "Real Literacies" (Street, 2012) and which was first used in the context of teacher training for adult literacy programmes. The LETTER project – Learning for Empowerment Through Training in Ethnographic-style research (Street, 2012; Street, Baker, & Rogers, 2006) offered short training in ethnographic research to adult literacy teachers and coordinators. They were trained to use ethnography to explore potential students' everyday literacy practices, the aim being to identify such practices and to develop curricula around them. Students' existing uses of literacy and their existing knowledge are to form the basis on which to develop new learning. Teaching materials are to focus on 'real' or 'authentic' texts such as notices, forms, the Bible, etc.

In the Peer to Peer Deaf Multiliteracies project we adapted this approach so that it could be used by tutors and students together, to allow the lessons to centre on learners' existing practices, their interests and needs. We introduced the method in a three month training period, in Odisha India, where we brought together the deaf research associates and the Indian peer tutors. For the peer tutors in Uganda and

Ghana we relied on cascading from the peer tutors and support from the project. During the training period, tutors found authentic texts and, together, we developed lessons that centred on these, including work on vocabulary, grammar etc. (For more details on how this approach was developed during the pilot project see Papen & Tusting, (2019) and Gillen, Panda, Papen, & Zeshan, (2016).

The philosophy that guided us has at is core the peer-to-peer approach, that considers students and tutor as a learning community. The curriculum, rather than generic and pre-developed, evolves and is based on the interests, ideas and real texts that students brought to the lessons. Grammar teaching is embedded in work with real texts. In addition to its grounding in a social practices perspective on literacy and the LETTER project, we know our project's approach could be linked with many others drawing on socio-cultural approaches to teaching language. For example Hewagodage & O'Neill, (2010) working with a group of marginalised non-English speaking background women in Australia conducted a sensitive needs analysis and then worked in a collaborative workshop with authentic texts in ways that gave all participants agency.

Peer to peer deaf literacies: the pilot project (2015-2016)

Our succinct summary of the project's effectiveness is reported by Zeshan et al., (2016). To overview, the project displayed positive results according to two major sources of evidence:

- Ethnographic records generated in various means including reports by peer tutors; observations by Research assistants; data from our online platform Sign Language to English by the Deaf (SLEND); 46 learner interviews.
- Performance in English literacy skills in 43 pre and post tests plus 17 delayed post tests based on an appropriately modified version of the Common European Framework of Reference for Languages (Council of Europe, 2001) and learners' self assessments of their English literacy skills.

Key future oriented lessons for us included:

- The value of the real literacies approach, which presented opportunities and challenges;
- The need in the communities we work in to engage with children;
- That the gains experienced by participants at all levels would be better approached through a broader understanding than "literacies"; for example learners and peer tutors reported improvements in sign language skills, the capacity for metacognitive thinking; critical approaches to developing general knowledge, etc.

For these reasons we moved in our next project to an orientation based on multiliteracies to which we now turn.

Multiliteracies

For some considerable time now the concept of multiliteracies has been developed to stress that in any contemporary community 'literacy' is in fact a complex set of practices and competencies in various modes (Cope & Kalantzis, 2000; New London Group, 1996). Those original turn-of-the-century arguments noted that in a rapidly changing world a dynamic approach was needed that acknowledged that reading and writing are less separable than previously considered and should be thought about as interactions with multiple modes better conceptualised as relating to design; that linguistic and cultural diversity should come to the forefront with an orientation towards social justice; and that literacy pedagogies needed to change. They suggested that these pedagogies could be considered as including four components: situated practice, overt instruction, critical framing and transformed practice. Our programmes includes an orientation to the multiple modes and languages indicated in the multiliteracies concept, and also focusses on enhancing the learners' and teachers' capacities to act effectively in the world. Our emphases on active learning, multilingualism, contextualised assessments and building portfolios to document progress increases the benefit to deaf learners' opportunities to benefit in terms of their on-going educational and employment capacities and overall wellbeing including with regard to being able to participate more fully in society.

Peer to Peer Deaf Multiliteracies: 2017-2020 Accessibility in project design

Recruitment and training

We work with deaf people at as many levels as we can. Obviously our project is targeted at deaf learners, and as explained above now works with young children as well as deaf adults. The essence of the peer to peer approach is that teachers also come from within the deaf communities. These are not expected to be fully expert in English literacies and other aspects of multimodality. Their expertise in the learners' L1, the local sign language, is the most important aspect of their skillset, for this is essential to enable deaf children to succeed (Murray et al., 2016). Research assistants are deaf and where possible our partners are also deaf and/or experts involved with deaf communities, such as the third author of this paper. Panda is deaf, the Director of Happy Hands School and of the Rural Lifeline Trust in Odisha.

Communication

We have adapted our modes of communication in line not just in line with technological possibilities but also in terms of people's preferences. SLEND is used for the adults' groups but not always as widely as planned. For example, in Ghana decreasing access to technology for the students means that it can be accessed by the staff and is then used mostly presentationally by the staff. WhatsApp has been a

particularly fruitful channel of communications owing to the easy creation of groups, both transitory and persisting, easiness of creation not just of text messages but also of videos, and accessibility through smartphones.

Engagements with the surrounding deaf-oriented communities

Our work on the ground is not hermetically sealed in the classroom. On the contrary we work through advisory group meetings, collaboratories (workshops aimed at generating future collaborative activities) and other means of engaging with local or national deaf communities and stakeholders concerned with them.

Project activities

As we always expected, our project is developing differently in our various locations and our endeavours to work towards accessible and sustainable approaches are playing out differently in the various locations. Here we do not make an effort to bring the findings and results of all the projects together, as this would be both premature and beyond the scope of this paper. We pick out a few different future-oriented activities that point towards accessibility, sustainability and multiliteracies.

India

Our data here is a micro case study put together by research assistant and peer tutor Nirav Pal. The micro case study is on the topic of "working with number literacy and sign language" and took place in January 2019 with 10 children, aged between 5 and 9 years' old, with varying length participation in the school. The data consisted of 1 peer tutor report; individual portfolios of 8 children (altogether 176 photos and 42 videos); 8 videos of group work and 5 videos of tutor explanations.

Figure 1: Emergence of the topic

Photos	Extract from Nirav Pal's report
	A mathematical teacher already teaches the students number, however I tried to ask the children how many there are wood spoons which I gave them and found them that some of them know to write the number, but most of them do not know the

meaning of the numbers and signs of the number including 6,7,8.....

so I should teach and guide them with different games related to the numbers and unusual exercises again as the number is very useful to them who always tell the adults how many they have own belongs at their house.

The real literacies approach is adapted to work with children. At the essence is an attempt to embed pedagogic principles for the Early Years drawn from established sociocultural understandings including learning through play, making connections to children's authentic experiences and enhancing children's capabilities to collaborate with one another (Rogoff, 2003).

Nirav's account of the emergence of the topic shows his awareness of the limited understandings of the children in respect of numeracy and his endeavours, aided at the time by a deaf volunteer assistant, to create a lively programme with a wide range of multiliteracies dimensions.

Figure 2: activities: Stairs and balls; Number train; Jumping; Complex mixed number circle

Images from photos or stills from videos	Extracts from different elements of Nirav's data.
	They asked each other to point out an even number on the stairs and then threw a ball it if they knew numbers in order to improve aim throwing skills as well as other some learnt easily from the classmates who know it threw it properly.

		The new children were encouraged to be creative by cutting and coloring material with the older children and my support before learning how many balls related to each number on a long board showing a cartoon train. (It took 2 days to make the train.)
		They really enjoy learning funny games and exercises….. They learnt easily number signs, however they understood from reading the peers' number signs more easily than signing numbers….. Most of the improved their long jumping by jumping in numerical net again.
		They asked each other to search visually number answers in the complex mixed number circle while presenting so that they are getting used to sign complex numbers and also read number signs as the interaction is important as well as the wide searching in the number circle helps to expend their minds.

Figure 2 illustrates some sample activities from the month. The first image is of a game in which stairs have been numbered; the task is to throw the ball onto an evenly numbered stair. Considerable effort was expended on the collaborative creation of a train with numbered carriages. The children contributed to this in various ways as a craft activity as well as a very simple instantiation of numbers. The train theme was also developed by some children who coloured in train pictures in a

"painting by numbers" exercise, bringing in the idea of a number as a symbolic index rather than necessarily associated with counting. The idea of blending physical exercise with number recognition was continued outside. The third image shows a 6 year old girl Binika, who is jumping onto spots according to the numbers signed by her partner. Although she has been at the school for less than 6 months she does very well at activities and has shared that she now finds it "easy to jump well." As the other children she finds it easier to read each other's number signs than to make them; nevertheless the final image is a of the final of a numeracy competition that Binika has reached. The boy in the bottom right suggests a number; Binika and her peer seek to point to it first while the tutor adjudicates.

Uganda

We now turn briefly to a week's activity in Uganda. In week 4 the peer tutor Olivia Nankinga had 8 children attending instead of the usual 11, owing to very heavy rainfall in the mornings. Research assistant Noah Ahereza observed.

Figure 3 Emergence of the topic

photo	From Noah Ahereza's report
	The aim is to expose children to RLE and teach them their daily activities, to understand what should be done at a given time and to teach them vocabularies as well as basic grammar.

The topic emerged from the experience of the peer tutor and the research associate in training and working with adults using a Clock activity (Satchwell, 2005). This is commonly used in working with adults to encourage them to identify and value the ways in which literacies are already used in their lives. Here the activity is made simpler in one sense that the recall exercise is used to prompt children to list and sequence common activities in their everyday lives. Yet at the same time Olivia Nankinga used it as an opportunity to focus on present tense verbs in English, a very important element in written English which can be omitted in Ugandan Sign Language (as often possible in other languages including BSL and Russian).

Figure 4: activities: Sign language explanations; listing with words and drawings
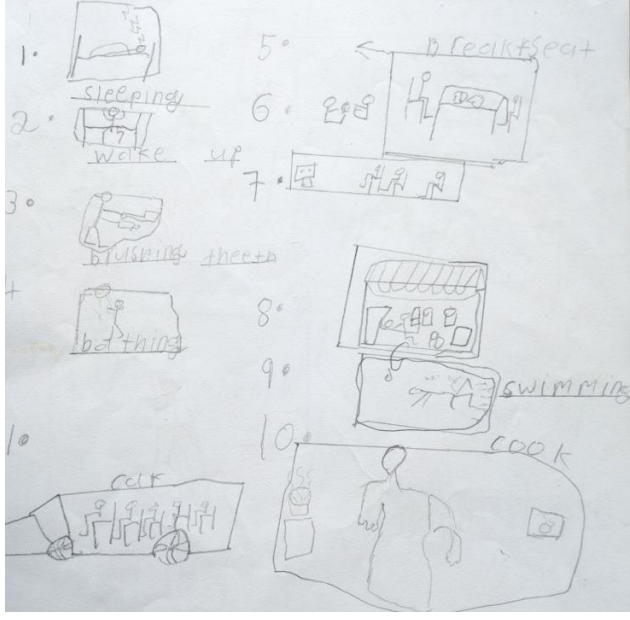
Images (still from video & photo)	extracts from Olivia Nankinga's peer tutor report
	The first activity was by PeerTutor giving her own example of what she does daily then followed by individual learners coming up and explaining theirs/what they do in sign language as the rest of class and PT watch and comment as well as asking questions probing.
	What followed was by giving learners sheets of papers and told to draw and labelling the pictures of the activities done individually clockwise starting with the time they wake up. After this the PT would sign different activities/verbs like BATHING, BRUSHING etc. and learners would try to write the vocabularies in English.

Figure 4 illustrates two of the activities involved with this topic. The first image is from a still; it is unfortunately impossible to convey a sense of Mora's communicative skills without viewing some video. Even without knowing Ugandan Sign Language or without accessing an interpretation, the range, fluency and expressiveness of his signing is most impressive. Mora is 9 years' old. The second image of the list with words and drawings is also his; clearly he is at least beginning to understand the suffix –ing for a present tense in English. The peer tutor's later reflections in the micro case study saw this lesson as an important step forward. Prior to this they could not write certain English verbs nor tell activities in an orderly sequence. They responded very well to the opportunity to integrate role playing

with signing and writing. The tutor noted that some of the children were continuing to refer to this lesson many weeks later.

The lesson is useful in that it illustrates the endeavour of the project in Uganda to constantly integrate our ethos with the curriculum requirements for formal learning of grammar within the development of reading and writing skills. The approach taken, combining developments of sign language use in grammar, vocabulary and construction of narratives, with differentiated uses of writing and drawing was very suitable to this mixed ability class.

The Ugandan project partner intends to use the experience from this project to develop a training course for sign language teachers, at diploma level. This will provide a way to disseminate our approach and increase its sustainability.

Ghana

In Ghana 5 young adults, 3 women and 2 men, aged between 19 and 23, engaged with their tutor Esther Akrasi on the topic of menstrual health. This had emerged from the "adolescent reproductive health" topic they were studying in Senior High School level 2. A study of hearing senior high school students' knowledge of reproductive health in Greater Accra revealed variation but included various barriers to knowledge including attitudes of health professionals; partners and some religious denominations (Averiyire, 2015). One of the students asked Esther if they could approach this topic in the project as she wanted to know more about "personal hygiene and also reproductive rights". They worked together in the third week of February 2019. Figure 5 illustrates Esther Akrasi's activities on SLEND.
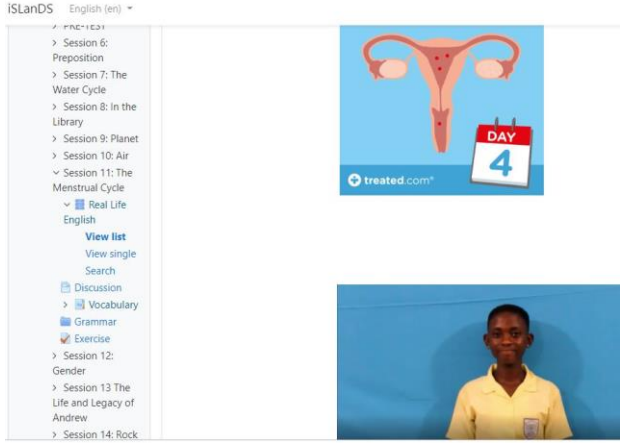
Figure 5 emergence of the topic

Screenshot from SLEND	explanation
	After the initial student expressed interest, Esther Akrasi has located on SLEND a schematic video about the menstrual cycle (top right). She later videos a student's explanation (bottom right). The left hand column illustrates some of the topics that have been placed on SLEND.

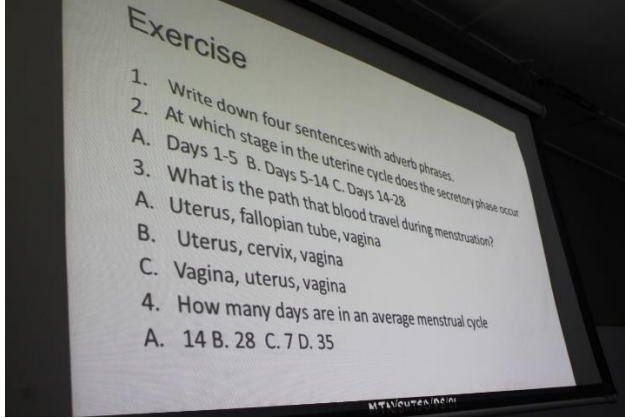**Figure 6 activities: group work, grammar, quiz**

	extracts from Esther Akrasi's report
	I asked students if they understand the lesson better after watching the RLE and Animated Video. Their response were affirmative and therefore I put them into groups to discuss on the topic. Some of the questions they discussed include 'why it is important for menstrual cycle in our body'.
	Students did grammar work on …adverbs [as the word "monthly" was important]. Students were given audience to express their ideas on the grammar lesson. I then cited two examples for students to see and discuss. After that, I shown PPT lesson on adverb for students to read and discuss.
	Exercise was given at the end of the lesson and students did very well answering almost all the questions correctly.

Figure 6 illustrates how the topic of the menstrual cycle was explored. In some ways the classroom resembles a traditional didactic set up including with its physical layout and use of evaluative exercise at the end. However the project's real literacies approach is evident in such aspects as:

- emergence of the topic from students' interest – arising from school topic and everyday lives;

- dialogic approach to discussion including student creation of some learning materials;
- focus on grammar extracted meaningfully from the topic.

In Ghana the project is another good example of interactions with the broader deaf community and other parties actually or potentially involved in work towards lessening the marginalisation of deaf people. Our partners are immediately involved in sustainable actions in three ways:

1) Co-investigator George Akanlig-Pare of the University of Ghana is involved with the Ghana National Association of the Deaf's campaigns for the recognition of Ghanaian Sign Language. Multiple national experiences have shown that aims and potential benefits lie in three directions: the recognition of a sign language, rights to interpretation services in public life and linguistic rights in education (de Meulder, Murray, & McKee, 2019: 306).

2) Research Assistant Marco Nyarko is studying for an MA (TESOL) and is already contributing to the teaching of Ghanaian Sign Language.

3) The University of Ghana plans to expand its contributions not just to GSL but also to deaf education nationally. P2PDML is considered a model for its prioritization of the education of deaf teachers.

Conclusions

Interventions directed at marginalised peoples, such as deaf communities in the Global South, can be in danger of not recognising the "unfinished agenda" of lifelong learning (Hanemann, 2015). It is not acceptable, if it ever was, to consider literacy as a set of skills that once acquired confers automatic benefits now and into the future; nor is it acceptable to consider literacy as a kind of blanket that works the same for everybody. Our project has recognised that deaf people, as others, participate in many different ways. We have not aimed for all deaf people in the project to reach the same "standards" as every other. Our variable model of deaf participation, from the young child learner with no knowledge of sign language to the research assistant able to work towards an MA, and so much differentiation and diversity in between, contributes to a more holistic and lifelong perspective on literacy, considered holistically, or as multiliteracies.

We suggest that a multiliteracies lens can be applied to the pedagogical approach of this project, with evident examples of situated practice, overt instruction, critical framing and transformed practice. We acknowledge with Jacobs, (2013) that multiliteracies as a concept benefits from rethinking in new contexts. We propose that our approach is novel in terms of conceptualising accessibility in participatory terms and also that it brings multiliteracies fully into current reconceptions of the positive roles inclusion of deaf communities can bring to theorising multimodalities (Kusters, Spotti, Swanwick, & Tapio, 2017). Their work stresses the multilingual dimensions to multimodality in deaf learners' semiotic repertoires. Jacobs (2013)

proposes that bringing playfulness into multiliteracies pedagogies is vital (and indeed part of the original intent) and that learning and teaching should not always be routed down predetermined paths. So it seems to us that contemporary rethinking of multiliteracies can indeed draw upon the "real literacies" approach as interpreted in this project in diverse ways.

Note on ethics

Ethical approval for both projects was obtained at UCLan and Lancaster University; further details on request. Names of children are pseudonyms, some of which are selected by the children themselves.

Acknowledgements

Bibliography

Averiyire, P. (2015). *Level of knowledge in reproductive health practices among senior high school girls in Greater Accra region: a case study of two senior high schools*. University of Ghana, Legon.

Cope, B., & Kalantzis, M. (Eds.). (2000). *Multiliteracies: Literacy learning and the design of social futures*. London: Routledge.

Council of Europe. (2001). *Common European framework of reference for languages: learning, teaching, assessment.* Strasbourg. Retrieved from http://www.coe.int/t/dg4/linguistic/Source/Framework_en.pdf#page=8

de Meulder, M., Murray, J. J., & McKee, R. L. (Eds.). (2019). *The legal recognition of sign languages: advocacy and outcomes around the world*. Bristol, UK: Multilingual Matters.

Gillen, J., Panda, S., Papen, U., & Zeshan, U. (2016). Peer to peer deaf literacy: working with young deaf people and peer tutors in India. *Language and Language Teaching, 5*(2), 1–7. Retrieved from http://azimpremjiuniversity.edu.in/SitePages/pdf/Language-and-Language-Teaching-July-2016.pdf

Hanemann, U. (2015). Lifelong literacy: Some trends and issues in conceptualising and operationalising literacy from a lifelong learning perspective. *International Review of Education, 61*(3), 295–326. https://doi.org/10.1007/s11159-015-9490-0

Hewagodage, V., & O'Neill, S. (2010). A case study of isolated NESB adult migrant women's experience learning English: A sociocultural approach to decoding household texts. *International Journal of Pedagogies and Learning*, *6*(1), 23–40.

Jacobs, G. E. (2013). Reimagining Multiliteracies: A Response to Leander and Boldt. *Journal of Adolescent & Adult Literacy*, *57*(4), 270–273. https://doi.org/10.1002/jaal.249

Kusters, A., Spotti, M., Swanwick, R., & Tapio, E. (2017). Beyond languages, beyond modalities: transforming the study of semiotic repertoires. *International Journal of Multilingualism*, *14*(3), 219–232. https://doi.org/10.1080/14790718.2017.1321651

Murray, J. J., Kraus, K., Down, E., Adam, R., Snoddon, K., & Napoli, D. J. (2016). *World Federation of the Deaf position paper on the language rights of deaf children*. Helsinki. Retrieved from https://2tdzpf2t7hxmggqhq3njno1y-wpengine.netdna-ssl.com/wp-content/uploads/2017/01/WFD-Position-Paper-on-Language-Rights-of-Deaf-Children-7-Sept-2016.pdf

New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, *66*, 60–92.

Papen, U., & Tusting, K. (2019). Using ethnography and "real literacies" to develop a curriculum for English literacy teaching for young deaf adults in India. *Compare: A Journal of Comparative and International Education*. https://doi.org/10.1080/03057925.2019.1585756

Rogoff, B. (2003). *The cultural nature of human development*. New York: Oxford University Press.

Satchwell, C. (2005). Literacy around the clock: an examination of the clock activity. In *Proceedings of 3rd International Centre for Research in Lifelong Learning*. Glasgow.

Street, B. V. (2012). LETTER: Learning for empowerment through training in ethnographic-style research. In M. Grenfell, D. Bloome, C. Hardy, K. Pahl, J. Rowsell, & B. V. Street (Eds.), *Language, ethnography and education* (pp. 73–89). New York: Routledge.

Street, B. V, Baker, D., & Rogers, A. (2006). Adult teachers as researchers: ethnographic approaches to numeracy and literacy as social practices in South Africa. *Convergence*, *39*, 31–44.

Zeshan, U., Fan, H. R., Gillen, J., Panda, S., Papen, U., Tusting, K., … Webster, J. (2016). *Summary Report on "Literacy development with deaf communities using sign language, peer tuition, and learner-generated online content: sustainable educational innovation."* Preston. Retrieved from https://islandscentre.files.wordpress.com/2016/10/summary-report-p2pdl1.pdf

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