

Policy Report on “Peer to Peer Deaf Literacy” (P2PDL)

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Project partners:	University of Central Lancashire, UK Lancaster University, UK National Institute of Speech and Hearing, India Lancaster University Ghana Uganda National Association of the Deaf
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Introduction and approach

This policy report summarises recommendations arising from a project that aimed at innovating English literacy instruction for young deaf learners in India. The aim of the project was to design, implement, and evaluate English literacy instruction, using the following design features: Indian Sign Language as the medium of communication between tutors and learners; deaf peer tutors delivering the interventions with deaf learners; and multimedia online learning materials, designed by the groups of learners themselves.

The project was a multi-disciplinary collaboration between academics from the areas of applied (sign language) linguistics, ethnography, digital literacy and TESOL (Teaching English to Speakers of Other Languages), together with deaf-led NGO partners in India and sub-Saharan Africa. This report summarises policy implications for the Indian context.

The project’s theoretical and methodological underpinnings, as well as the research questions, are described in detail in Ahreza et al. (2016), Gillen et al. (2016), and Zeshan et al. (2016). These include:

- an ethnographic approach based on authentic identification of literacy needs ('real literacies approach', Street, 2012);
- a transformative mixed methods paradigm (Mertens, 2010) towards social justice and the furtherance of human rights;
- standardised language testing using the Common European Framework of Reference for Languages, CEFR, level A1/A2, adapted for deaf people (Council of Europe, 2001);
- development of a virtual learning platform Sign Language to English by the Deaf, SLEND (Figure 1), and training in the use of the platform for deaf peer tutors;
- and qualitative data analysis from focus groups, interviews, and observations using Atlas.ti.

Led by peer tutors, the learners actively created their own learning materials and shared them with other groups on SLEND. No predetermined curriculum was used in this learner-centric approach. Literacy interventions were implemented at five field sites across India, with a total of 46 young deaf learners between the ages of 18 and 35. The project employed three deaf research assistants (RAs) and five deaf peer tutors (PTs) in India.

The project maintains a website with all the essential information and regular updates, available at www.deafliteracy.net

¹ The full name of the project is: “Literacy development with deaf communities using sign language, peer tuition, and learner-generated online content: sustainable educational innovation”

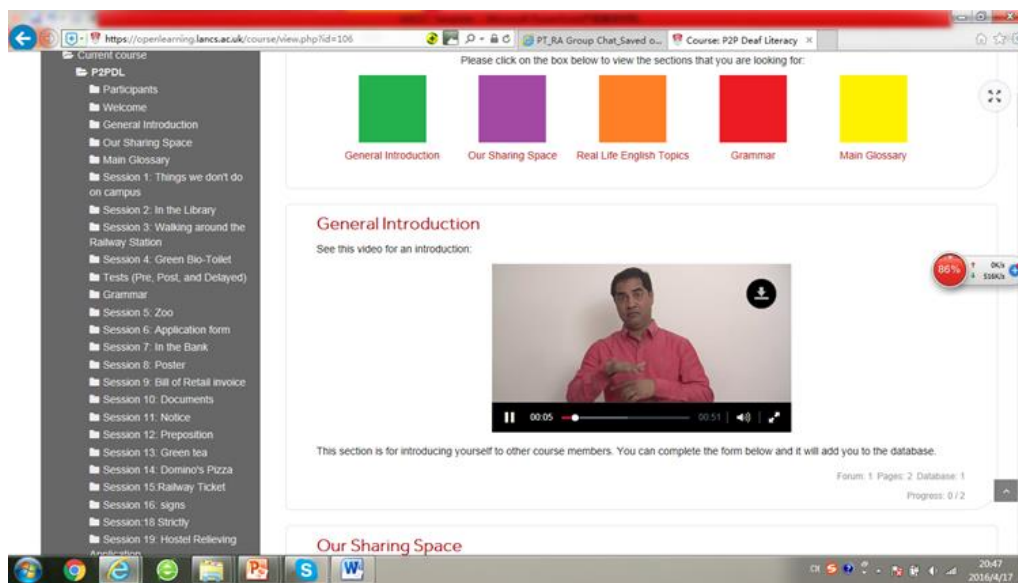


Figure 1: Screenshot of the SLEND platform

Findings

English language tests and self-assessment questionnaires on English literacy skills were generated from language learners in India.² There was a statistically significant improvement (Wilks' Lambda=.24, $F(2, 15)=23.76$, $p<.00$, multivariate partial eta squared=.75) of English language skills over time (Table 1). In addition, there was a statistically significant improvement ($t(15)=-5.309$, $p<.001$) in students' self-assessment in relation to English literacy skills (Table 2).

Table 1: Mean scores on pre-test and post-test

	N	Pre test	Post test
Comprehension	43	47.7	57.3
Writing	43	31.8	41.8
Overall	43	34	43.7

Table 2: Pre/post self-assessment of English literacy skills

	N	Mean	Standard Deviation
Pre-test	44	3.750	0.2757
Post-test	44	4.081	0.2257

Key findings from qualitative data, including interviews with 46 learners, indicated a wholly positive response regarding usefulness of the real-life English approach and highlighted the use of Indian Sign Language as essential to improving English literacy. The learners appreciated that working with real texts gave them opportunities to learn many useful new words and expressions, which equipped them with a vocabulary that could support them in other situations and activities in their everyday lives. Learners felt that their knowledge was positively recognised, and in the lessons, their sign language skills were valued and expanded as they jointly made sense of a text or prepared a contribution to the SLEND. They valued opportunities to connect with other student groups, the diversity of activities, and the multimodal learning resources. The peer tutors were seen as supportive, raising learners' confidence. Respondents also commented on difficulties, most crucially, access issues to the SLEND and some concerns regarding varieties of Indian Sign Language.

² In addition, 17 learners participated in delayed post-tests, taken several weeks after the end of the intervention. Pre- and post-tests are discussed in this report. For additional data, and details on the statistical tests used, see Zeshan et al. (2016). A few learners did not produce valid test results and are not included in the figures.

Recommendations

1. From peer tutors to language and literacy trainers

Deaf sign language users acting as peer tutors have proven to be effective in this context. The intervention has shown that further improvements can be made by providing more in-depth training to peer tutors, which will ameliorate some of the difficulties identified in the qualitative research. The research found that tutors were challenged by the task of transforming a real text into a lesson on a specific grammar topic; some data suggested that the tutors were not always familiar enough with the relevant grammar used in a real-life text brought into class, and therefore had difficulty when attempting to develop grammar exercises. Because they did not have a grammar book or ready-made grammar lessons to hand, they were often compelled to spend a great deal of time searching the internet and/or creating their own exercises. These findings are important for further adaptations to the approach in the future.

Therefore, **we recommend a one-year training programme for deaf sign language users to become “Language and Literacy Trainers”**. The academic project team are able to produce a curriculum and train the first trainers for such a programme. The Rehabilitation Council of India (RCI) has indicated its willingness to formally accredit this training, after which trainers could be deployed to educational institutions serving deaf students on a larger scale.

Along with the curriculum, the project team will also work on other aspects relevant to the implementation of the course, such as criteria for candidate selection to the course, requirements to be met by providers delivering the course to trainees, and a monitoring mechanism by experts in linguistics to address any amendments quickly and efficiently.

2. Diversification of VLE access

The project has shown that the Virtual Learning Environment SLEND could not always be accessed easily due to availability of smart phone, internet connections, sufficient bandwidth, or a combination of these factors. Therefore, access to learning material needs to be diversified, and/or smartphones and broadband access need to be funded. **We recommend further research into such options**. Possibilities include: selecting a subset of the multimedia material with smaller file sizes for deployment on mobile platforms (e.g. apps), or creating options for off-line use of materials.

3. Indian Sign Language (ISL) as the medium of instruction

The use of sign language among peer tutors and learners has been one of the most important factors in learners' progress because it ensures complete communication and complete accessibility of the learning situation. The research also highlighted that participants found their sign language capabilities and metalinguistic awareness improved, which has added to their overall skills development.

However, the different regional varieties of ISL can sometimes cause difficulty with sharing sign language materials across different regions of the country, because not everything is completely intelligible between different regional varieties. On the other hand, pooling self-developed materials produced by several groups is necessary because a single group will not be able to produce enough material, and there is too little suitable pre-existing material. Sufficient learning material can only be produced collectively in the short term.

As the literacy programme is rolled out on a larger scale, **we therefore recommend that the training for language and literacy trainers should include a module on regional variation in ISL**, so that the trainers can support the students in accessing material from other regions. This will also include some guidelines for Language and Literacy Trainers on the sharing of materials from different regional varieties of ISL. In addition, **we recommend that Language and Literacy Trainers posted within the region with the same ISL dialect should be encouraged to form strong networks for sharing of ISL materials**, so that larger pools of sign language material from the same regional variety can be used by all learners from this region. In the absence of sufficient research into regional variation in ISL, and until training material on regional variation becomes widely available, we suggest that initial cohorts of Language and Literacy Trainers will be supported in developing resources on regional variation in ISL, such as vocabulary comparisons of the regional varieties.

4. English literacy instruction for deaf children

The project has only covered English literacy work with young deaf adults, and in contexts of non-formal non-compulsory education. For implementing such work with deaf children of different ages, it is expected that various adaptations will have to be made. Therefore, **we recommend:**

- **follow-on research to be done on the implementation of the “peer-to-peer deaf literacy” approach with deaf children;**
- **the training programme for Language and Literacy Trainers to include a module on English literacy provision for deaf children of different ages;**
- **policy work to be undertaken with schools for the deaf to facilitate the inclusion of deaf signers with the accredited Language and Literacy Trainer qualification as staff in schools and other educational programs.**

The currently valid RCI-directive for offering a bilingual education option in schools for the deaf should be followed up, and schools should be made aware of the availability of deaf staff and sign language-based learning resources for English literacy. Moreover, extending this provision to formal compulsory education should be done in the framework of the new Right of Persons with Disabilities Bill (2016), which contains some articles relating to sign language provision in deaf education. This new Bill is a response to the UN Convention on the Rights of Persons with Disabilities (UNCRPD) and provides a policy context for the use of sign language in education.

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