
ECE190026

Examining the role of schooling in the cognitive and wider development of children in the Province of Punjab (Pakistan) and State of Gujarat (India): Establishing routes for sustainable education Section 1 - ECE Interim Report 1

Research Update

We are pleased to report that the project has been successfully launched in the State of Gujarat, India and the province of Punjab, Pakistan under most unfortunate and critical circumstance due to the Covid 19 crisis. Before the global pandemic hit these two regions, we were able to complete the preparatory work such as identification of regions for sampling, development of assessment tools, signing memorandum of understanding with partners, website development, ethics approval, and approval from the local government regions to conduct this activity. In addition, we completed a comprehensive pilot of the instruments in Gujarat and Punjab. A report of this pilot study has been published Reference:

Siddiqui, Nadia, Bulsari, Smruti, Gorard, Stephen, See, Beng Huat, Dixon, Pauline, Pandya, Kiran, Saeed, Saba & Saeed, Sahar (2020). Pilot study report 2020 Assessing Early Years Schooling, Access and Student Outcomes (AESAS): [Establishing routes for sustainable education in Pakistan and India](#)

Both countries implemented lockdown measures, following the recommendation of WHO, in the last week of March 2020 which was the time we were ready to start the first data sweep. All plans were delayed until the end of May and we spent this time in reviewing literature and thinking of innovative ideas to modify the planned activities for remote implementation. We received some very encouraging messages from the British Academy asking project members to seek extensions and at the same time modify the project to fit the circumstances. We requested an extension until 2022 considering that the delay means we will not be able to complete the project in 2021. We developed new protocols for children's assessment using mobile technologies and after seeking advice from the advisory committee, the project leads in Gujarat and Punjab conducted a new cycle of pilot tests. The pilots were successful in using the mobile and internet technology. We have found that access to internet connection did not really pose any major challenge to our modified remote assessment and household plans.

The internet coverage is very good in Gujarat, Indian and Punjab, Pakistan. However, access to mobile devices can be a barrier because very poor families sometimes do not possess a smart phone. As we are not utilising funds for travelling and test/survey printing, we are now using some of these funds to purchase some extra smart phones with internet access which will be given to enumerators who will access highly disadvantaged groups. We received a very positive response from the parents, children and local enumerators helping us in collecting the data we need on children's learning and development in early years. We have now formally recruited and trained enumerators in Gujarat, India (N=12) and Punjab, Pakistan (N=16) and conducted two online workshops providing training to the enumerators for collecting data using the mobile technology (instead of face to face) The selection of enumerators is managed by the project leads

in Gujarat, India and Punjab, Pakistan. This was a careful selection of people who have access to a wide range of populations in their communities and can conduct this data collection exercise using mobile and internet technology. Most of our enumerators are skilled in conducting surveys and have prior experience of collecting data from children. The data collection process now does not require any prolonged visit to households or face-to-face interaction with parents and children (there may be some brief contact visits with social distancing just to recruit disadvantaged participants with not mobile phones). This process has mitigated the high risk to health. However, to ensure that the enumerators are secure from catching or spreading infection we have taken additional measures of providing extra mobiles with internet connection so that the enumerators can temporarily share this hotspot with the households who do not possess mobile and internet. They will maintain social distance. Moreover, we will provide hand gloves and face masks / the PPE kit for all enumerators, in case they have to reach a community or household with limited mobile and internet access. The enumerators have agreed to these protocols whenever they contact hard to reach communities. We are also using Whats App as an additional tool to maintain contact and communication with our trained enumerators. There are two Whats App groups where the enumerators are in touch with us and can ask and share information on these groups.

Forward Plans

See above.

The fieldwork has now started. We are using remote access mobile phone technology for children's assessment and the household survey. We have made significant adaptations in our tools after learning from the results achieved in our pilot study, and conducted a second pilot using mobile phones. We are proceeding with the first data sweep. We have published a report of our first pilot conducted before the Covid 19 lockdown. This is published as a working paper and we have plans for writing a research article based on this work and publishing in the journal of early childhood development and learning. Some findings on children's early years of learning have been discussed in this report:

Siddiqui, Nadia, Bulsari, Smruti, Gorard, Stephen, See, Beng Huat, Dixon, Pauline, Pandya, Kiran, Saeed, Saba & Saeed, Sahar (2020). Pilot study report 2020 Assessing Early Years Schooling, Access and Student Outcomes (AESAS): Establishing routes for sustainable education in Pakistan and India. We have plans to publish another working paper on amendments made to the project and how we implemented the new project protocols. This will be published in July 2020. We will have findings of the first data sweep ready for analysis in October 2020. We will be able to publish these initial findings by the end of this year. This will mainly inform us about the characteristics of our achieved sample, readiness for school, and challenges of access to learning and development. Our second data sweep will begin in June 2021. We will trace the same sample of children and households using our remote access mobile technology protocols. The results of this data sweep will be ready for matching and analysis in August 2021 and we plan to publish our preliminary project findings on the impact of school on children's learning by the end of 2021. We hope to meet these major targets according to this timeline. For the rest of extension period we will focus on publications and impact related activity.

Lessons Learnt

Modifying the project after the Covid 19 crisis was a huge learning experience for our team. We encountered various stages in the decision-making process, beginning from delaying the activity for a few weeks, to giving up the whole project in the third week of lockdown, and then to restarting the project with all new plans and procedures. The current plan for data collection is a modification of our original plan. However, we have invested a lot of care, planning, discussion with advisory committee and piloting of our current plan. We have introduced measures of protection against health risk. The project is now mainly a remote activity but supplemented with protective tools such as face mask and gloves/PPE kit where the enumerators reach out to

households to lend them a mobile (so as not to exclude the most disadvantaged families from the study).

Dissemination, Outreach and Publications

We have archived acknowledgement from Save the Children organisation and this project is now linked on their website. We are using the child's assessment instrument developed by Save the Children. Our main contribution is that we have adapted it for remote implementation. In addition, we have provided a Gujarati and Urdu translation of this tool. Siddiqui, Nadia, Bulsari, Smruti, Gorard, Stephen, See, Beng Huat, Dixon, Pauline, Pandya, Kiran, Saeed, Saba & Saeed, Sahar (2020). Pilot study report 2020 Assessing Early Years Schooling, Access and Student Outcomes (AESAS): Establishing routes for sustainable education in Pakistan and India <https://www.dur.ac.uk/education/research/groups/?mode=project&id=1078> The project also has a website: <https://www.aesas.pk/>

Outcomes and Impact

The project is at a very early stage to determine possible impact. However, the information about our remote assessment and household survey activity has led to clear impact on IDELA assessment practice. We have shown that children's can be assessed safely using mobile phone and internet technology. As far as we know, children in early years have never been assessed remotely in these areas before this project. We are writing a detailed report of this assessment method.

Research Capacity Strengthening

Project partners are fully engaged in the development of this project. Around 30 early career researchers have been trained to conduct children's assessment and household survey and this training has provided them skills for taking part in any social survey activity. In addition, early career researchers and postgraduate students have engaged with us and supported in recruitment of households and reaching out to the enumerators who have access to most disadvantaged communities of the two regions. The early career researchers are involved in the project implementation and writing process so they can be co-authors of reports and research papers.

ODA eligibility

India and Pakistan will continue to be ODA eligible for the duration of the research. This research project is directly relevant in understanding the challenges of SDG 4.2 and investigating the barriers and 'what works' for children's access to early years education. The project findings will promote engagement with policy makers, public-private partnerships and academics in India, Pakistan and UK. The project will generate robust evidence on effective learning cultures and spaces in which early years of children's learning and development takes place. The project has a main focus on learning cultures of home, communities and school spaces. The findings will bring to our knowledge these learning cultures and spaces which effectively support children's cognitive learning and development of physical health and those which are a barrier to their cognitive learning and physical health development.

Emerging Research Findings

These findings are based on two pilot studies conducted in Gujarat, India and Punjab, Pakistan. The purpose of the pilots was just to validate our research protocol and instruments. However, we also found some interesting insights into children's learning and development process in relation with their school enrolment status 1) Children's enrolment in schools showed some positive impact in their literacy and numeracy skills. However, within these two domains some aspects of learning were not

related with children's school enrolment/attendance. 2) Children aged 3.5 to 6 years of age who were never enrolled in school were equally as good in story comprehension (read aloud) as their counterparts who were attending schools. 3) Children who had a delay in language, struggled to communicate and to engage in activities. There could be several reasons of delay in language in the early years but children from families with modest educational attainments augmented with high level of poverty and deprivation clearly had limited opportunities of verbal engagement with parents. 4) We also observed that some children, who were not attending school and whose parents were not at home during the day, had long hours spent in isolation or with other siblings without presence of an adult in the house every day. This was observed in immigrant workers who moved from rural to urban settings and lived in temporary accommodation or rented servant quarters. 5) Mostly immigrant women worked as domestic helpers while men worked as guards, drivers or domestic helpers. There was very limited verbal interaction between parents and children and possibly that was one of the reasons that children were behind their age in speech and language development. 6) Enrolment and attendance in school was important for children where both parents were working outside. However, in cases where children were not attending school but spent time with mother at home or accompanied her to the homes where she worked as a domestic helper, the children still showed a limited vocabulary and skills for verbal communication. 7) In India and Pakistan, joint families are common, more so in rural areas. Children living with grandparents are found to have better vocabulary and reading skills compared to children in the nuclear families. Children who live in extended (two brothers' families living in the same house) families also seem to have better vocabulary because of interaction with cousin siblings. 8) There is a big difference in the quality of private and government school early years learning provisions. The learning spaces of private schools are equipped with better resources and trained teaching staff. However, government provisions of nurseries lack in resources and quality of teaching. However, one stark

resemblance was observed in Anganwadi centres and pre-schools of international boards – both focus on cognition rather than reading abilities. Children attending Anganwadis as well as international board pre-schools were not taught how to read until attainment of six years of age. 9) A large number of children attend state funded early years learning centres in Punjab, Pakistan and Anganwadi centres in Gujarat, India. However, the conditions of these state funded provisions do not fully support the true purpose of conventional learning. Pilot study findings of remote assessment 1) It is possible to conduct a modified children's assessment and household activity using smart phones and internet technology. However, in order to reach the most disadvantaged groups, additional measures are required such as extra technology equipment and enumerators' availability in those areas. 2) Internet range is accessible to a large population in Gujarat, India and Punjab, Pakistan 3) Urban rural differences are clearly visible in the types of access to conventional learning opportunities. Children in rural background are better trained on life skills like swimming or climbing up / down a tree, where as children in urban areas exhibit better numeracy and reading skills. 4) Covid 19 crisis has stopped children to attend schools in both the countries. It is likely that schools will start in September and those who will attend will catch up the learning process quickly. However, we have observed that families with high income resources, parents having educational background and parents having awareness about importance of education have continued their efforts to home school their children. Disadvantaged families, who have to spend long hours working for a daily wage, do not have much resources and awareness to engage children in learning activities. So this crisis would likely effect children to an extent that they will be equally the same as children not enrolled in schools.