Faculty of Education
The University of Hong Kong

ARNEC
Asia-Pacific Regional Network for Early Childhood

unicef

Early Development and Learning in Papua New Guinea


Source: UNICEF

Background

Papua New Guinea (PNG) is a geographically and culturally diverse nation of 6.55 million people. About 40% of the population is under the age of 15, and 14% is below five years of age (UNICEF, 2012). The infant mortality rate is 44 deaths per 1000 live births (UNESCO 2014). The economy relies significantly on agriculture, which provides a subsistence livelihood for 85% of the population, and the export of natural resources.

Pre-school education is not compulsory in PNG which has a three-year elementary school programme. The full-time elementary school programme involves one Preparatory year (6-year-old children) followed by two years of Elementary education (7- and 8-year-old children). (UNESCO International Bureau of Education, 2011).

The community plays an important role in the planning, organisation, and monitoring of early childhood education to ensure its cultural relevance and instruction is given in the mother tongue of the child. Teachers are selected from within the local community and receive three-year training through the Certificate of Elementary Teaching (CET) training programme.

Objectives

PNG was one of six countries that participated in the East Asia- Pacific Early Child Development Scales (EAP-ECDS) project, supported by UNICEF- East Asia and Pacific Regional Office (EAPRO), the Open Society Foundations, and the Asia-Pacific Regional Network for Early Childhood (ARNEC).

The main objective of this project was to equip stakeholders across East Asia and the Pacific with a common measurement tool to assess the holistic developmental progress of children ranging in age from three to five years. It was felt that stakeholders in PNG including governments, universities, research institutions and donor partners, would be able to utilise the data garnered from this project to promote early development and learning, and prevent the loss of human potential by investing in the early years.

Methodology

As part of this project, direct assessments of the holistic development and learning of 3- to 5-year-old children residing in urban and rural settings were carried out in 2013-2014. Children were administered the EAP-ECDS. The items on these Scales were developed based on the Early Learning and Development Standards (ELDS) from countries in the East Asia and Pacific Region and through an iterative process. The EAP-ECDS includes seven domains and 85 items. Caregivers were also interviewed in individual sessions to obtain: (i) standard demographic data; (ii) reports on the child's early learning and development; and (iii) information about the child's health and habits.


Source: UNICEF

Papuan children learning at school

Conclusions

- The EAP-ECDS are valid and reliable measures of developmental functioning in PNG. Older children performed better than younger children in all domains of the Scales.
- Participation in early childhood programmes had a significant positive effect on the EAP-ECDS. Children who attended such programmes scored about 7 percentage points higher than other children.
- Early childhood education in urban areas must be enhanced to improve the performance of children in urban areas.
- Caregivers should be provided education and support to encourage them to be more involved in the early development of their wards.
- Steps should be taken to address gender differences in early learning and development.

Source: Rao, N., Sun, J., Ng, M., Becher, Y., Lee, D., Ip, P., & Bacon-Shone, J. (2014). *Validation, Finalization and Adoption of the East Asia-Pacific Early Child Development Scales (EAP-ECDS)*. UNICEF, East and Pacific Regional Office.

Sample

Age	Rural		Urban		Total
	Girls	Boys	Girls	Boys	
3Y	173	170	99	95	**537**
4Y	181	188	114	79	**562**
5Y	226	213	98	108	**645**
Total	**580**	**571**	**311**	**282**	**1744**

A total of 1,800 children and their parents/caregivers from 15 provinces in Papua New Guinea participated in the study. The sampling strategy was determined in conjunction with the Statistical Department and the sample was stratified by region, urbanicity, and child's age and gender. Tests confirmed that the EAP-ECDS were valid and reliable measures of the early development and learning of children from Papua New Guinea

Early Child Development

Comparisons of average scores on each domain were made across age, sex, and urban/rural settings. Further, the relationship between findings from direct assessments of children's performance and parent reports were also compared. Predictors of child development and learning, participation in early childhood programmes, home learning environments, children's health condition and health-related practices were also examined. There were significant developmental differences in the EAP-ECDS. Older children performed better than younger children in all domains of the Scales. This finding is not unexpected as the EAP-ECDS is a developmental scale with adequate validity and reliability.

Cognitive Development
- Boys showed significantly better performance than girls.
- Rural children did significantly better than urban children – unlike in the other countries where the opposite was true.

Socio-emotional Development
- Rural children showed significantly better performance than urban children.

Motor Development
- Children from rural areas did significantly better than urban children.

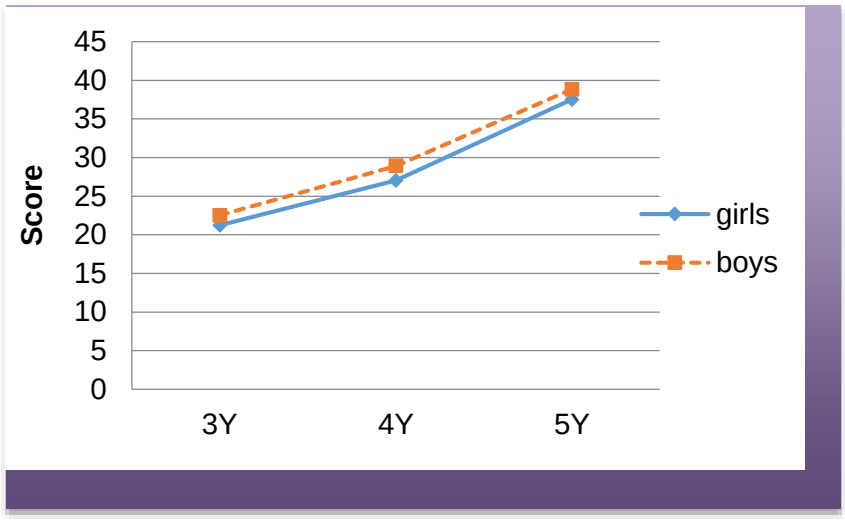
Language and Emergent Literacy
- No significant effect other than age was detected.

Health, Hygiene, and Safety
- Children from rural areas did significantly better than urban children.

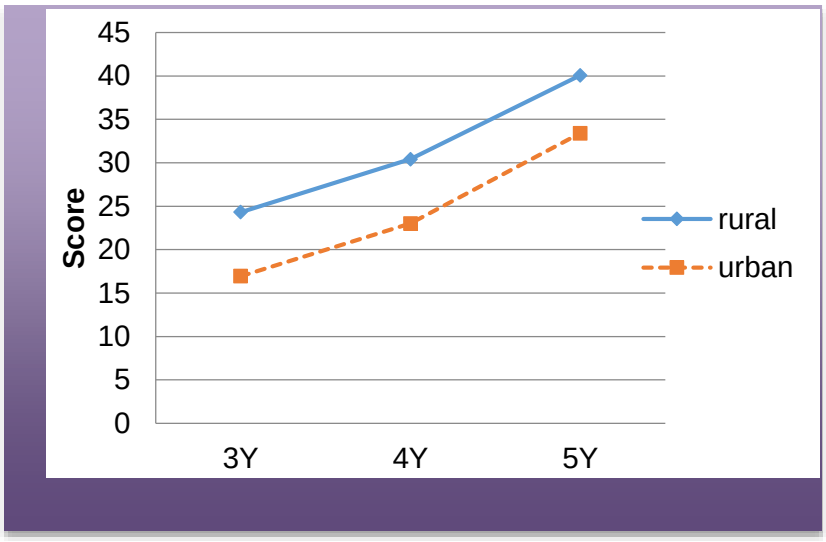
Cultural Knowledge and Participation
- Children from rural areas significantly outperformed their urban peers.

Approaches to Learning
- Children from urban areas did significantly better than rural children. This was the only domain in which they performed better than their rural counterparts.

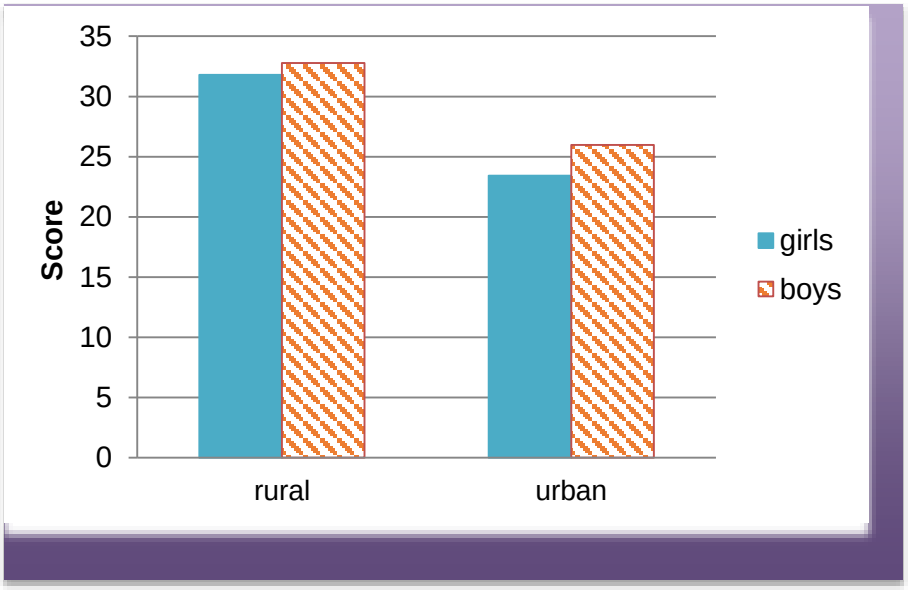
Age and Gender differences in Cognitive Development (Papua New Guinea)



Age differences in Cognitive Development in children living in rural and urban areas (Papua New Guinea)



Gender differences in Cognitive Development in children living in rural and urban areas (Papua New Guinea)



Early Learning and Development

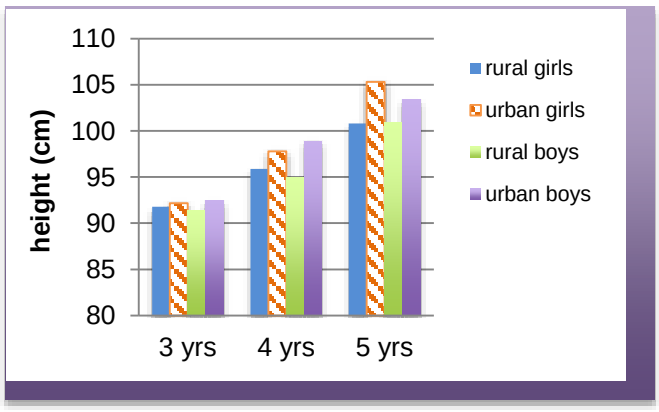
- A small number (2.8%) of the participating children (aged 3 to 5 years) attended some form of early education programme. The children who lived in rural areas or those of better-educated parents were more likely to be enrolled in an early learning programme than other children.
- Almost all the children who attended an early childhood programme went to kindergartens, and most of them spent less than 10 hours a week in the programme.
- Mothers were more involved in early learning activities than other family members, and urban educated mothers were more likely to support early learning at home than other mothers.

Health and Hygiene

- Almost all children (92.5%) had had their vaccinations.
- Child's age was the best predictor of health facilitation practices.
- Results indicated that older children, those living in urban areas, and those with more educated mothers tended to have better health and hygiene habits (e.g., always washing hands after using the toilet and before meals without adults' directions, and eating vegetables without adults' directions) than other children.
- Urban parents were more likely to report that their children had health problems than those living in the rural areas. It is not clear whether urban children suffer poorer health or whether urban parents are more aware of children's health issues, and are more likely to report health concerns.

Height and Weight

Age and Gender differences in Height in rural and urban areas (Papua New Guinea)



Age and Gender differences in Weight in rural and urban areas (Papua New Guinea)