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## Do Late Entry and Grade Repetition Help to Improve Academic Achievement? Evidence from Malawi, Ghana, and Uganga

## Abstract

Students in primary school often have unofficial ages at each grade in sub-Saharan Africa because of late school entry and grade repetition. Children enter primary school late for several reasons, such as unmatured bodies, unprepared school materials, and long distances to school. Late entry tended to cause delayed cognitive and non-cognitive development, grade repetition (Taniguchi, 2015), and early dropout (Taniguchi, 2017; Hirakawa & Taniguchi, 2021). Also, grade repetition is common in some countries; many students repeat a grade. It is considered a remedial for academic achievement. However, a question arises "Do late entry and grade repetition help to improve academic achievement?" By drawing data from Malawi, Ghana, and Uganda, the study investigated the effect of late entry and grade repetition on academic achievement in primary school.

English and mathematics tests were developed based on each country's national curriculum and textbooks to measure curriculum attainment. First, item back (making many question items) was created: 97 question items for the English test and 110 question items for mathematics tests. Then, by selecting question items, tests were made. Because of the different achievement levels in the three countries, two types of tests were developed: Test A for Malawi and Uganda and Test B for Ghana. The level of Test B was higher than Test A. To compare Test A and Test B, the common items were included in both tests: 20 question items for the English test and 18 question items for the Mathematic test. There were 40 question items in each subject and both tests. The time was 90 minutes. In addition, the questionnaires were distributed to obtain student background information such as gender, age, and grade repetition experience.

The sample was 900 grade 5 and 636 grade 6 students in 12 public primary schools in Lilongwe East and Nkhata Bay District, Malawi, 919 grade 5 and 981 grade 6 students in 23 public primary schools in the Lower Manya Krobo District, Eastern Region, Ghana, and 1049 grade 5 and 966 grade 6 students in 18 public primary schools in Mpigi District, Uganda. Data was collected in Malawi from October to November 2021, Ghana from January to February 2022, and Uganda from June to July 2022.

In analysis, item response theory was utilized to equity scales in three countries using common question items in each subject. Also, t-tests and one-way analysis of variance were used to compare academic achievement among ages at first entry and the number of grade repetitions. Age entered primary schools was computed by age and number of grade repetitions. Students were classified into three groups: early entry (below five years old), proper entry (between six and eight years old), and late entry (above nine years old). In all countries, late entry was a high percentage. In Malawi, the rates of three groups were 9.83 % for early entry, 71.73% for proper entry, and 18.44 for late entry for grade 5 and 9.02 % for early entry, 81.17% for proper entry, and 9.81 for late entry for grade 6. In Ghana, the percentages of the three groups were 20.57 % for early entry, 56.26% for proper entry, and 23.18 for late entry for grade 5 and 12.55 % for early entry, 61.94% for proper entry, and 25.51 for late entry for grade 6. In Uganda, the percentages of the three groups were 4.96 % for early entry, 68.51% for proper entry, and 26.53 for late entry for grade 5 and 4.25 % for early entry, 73.06% for proper entry, and 22.69 for late entry for grade 6.

Grade repetition was a significant issue in all three countries. In Malawi, the percentages of grade repetitions were 39.67% for once, 22.56% for twice, and 10.00 for three times or more for grade 5 and 39.78% for once, 25.47% for twice, and 11.48 for three times or more for grade 6. In Ghana, the percentages of grade repetitions were 12.73% for once, 5.66% for twice, and 19.80 for three times or more for grade 5 and 17.02% for once, 2.75% for twice, and 10.30 for three times or more for grade 6. In Uganda, the percentages of grade repetitions were 25.07% for once, 6.58% for twice, and 4.29 for three times or more for grade 5 and 23.29% for once, 4.66% for twice, and 2.80 for three times or more for grade 6.

In English achievement, there were significant differences among ages at first entry in all countries. Children entering primary school at proper age tended to have higher achievement than those entering primary school at early and late ages. Interestingly, children entering primary school at an early age had lower achievement than those entering at a late age in Ghana and Uganda. Early entry is also a risk to reduce achievement. In mathematics achievement, there were significant differences among ages at first entry in Ghana and Uganda. However, the tendency was different compared with English achievement. In grade 5 of Ghana, children who entered primary school at the proper age have lower achievement than those who entered lately.

In English achievement, there were significant differences in grade repetitions in all countries. Achievement was decreased as increasing number of grade repetitions. In mathematics achievement, there were differences in the number of grade repetitions in Ghana and Uganda, except for Malawi.

Interestingly, the tendency was almost identical in grades 5 and 6. The results implied that late entry and grade repetition did not improve student achievement, although many factors influence achievement, such as socioeconomic status and parental education levels. Therefore, it is necessary to reconsider early and late entries and grade repetition in primary education.

