

## Authors

Sharon Wolf  
University of Pennsylvania



## Impacts of Pre-Service Training and Coaching on Kindergarten Quality and Student Learning Outcomes in Ghana

Sharon Wolf

Graduate School of Education, University of Pennsylvania, United States

### ARTICLE INFO

**Keywords:**  
kindergarten  
early childhood education  
pre-service training  
teacher training  
Ghana  
sub-Saharan Africa

### ABSTRACT

Using a randomized-control trial, this study evaluates a program designed to support Ghanaian kindergarten student-teachers during pre-service training through mentorship and in-classroom training. Several potential barriers to improved teaching quality and learning outcomes are examined. Findings show that the program improved knowledge and implementation of the national curriculum for individuals both when they were student-teachers and, the following year, when they became newly qualified teachers (NQTs). There were mixed impacts on professional well-being, increasing personal accomplishment and motivation but decreasing job satisfaction for NQTs. There were mixed impacts on teaching quality, with increases in child-led learning but decreases in some other aspects of quality. There were no impacts on NQTs' student learning outcomes. The findings highlight system-level challenges with both the quality of NQTs and the absence of support to state that teaching year. Implications for global early childhood education policy and teacher education are discussed.

### 1. Introduction

International efforts to increase access to high-quality early childhood education have been dominant in recent years. Sustainable Development Goal 4, Target 4.2, calls for "ensure [that] all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education" (United Nations, 2015). For this target to be achieved, governments will need to focus on both access to pre-primary education (e.g., by incorporating it into the basic education system) and ensuring the delivery of high-quality education (e.g., by producing a well-trained teacher workforce). Ghana has been a pioneer in these efforts, expanding 2 years of pre-primary education—called kindergarten 1 (KG1) and kindergarten 2 (KG2)—as part of its national basic education system in 2007. With some of the highest enrollment rates in early childhood education (ECE) on the continent at over 75% net enrollment in 2015–16 (Ghana Ministry of Education, 2016; UNESCO, 2015), Ghana's government has stepped up attention to the issue of quality, including developing a pre-service teacher certification track specifically to train KG teachers.

Developing and expanding a high-quality pre-service training program is one of top priorities of the Ghana Education Service in the Ministry of Education (MoE). Seven of the 48 colleges of education in Ghana currently offer a track for kindergarten teachers. Certification is a 3-year process, with 2 years of coursework and 1 year in a classroom as a student-teacher. This study evaluates the impacts of a training program implemented during the student-teaching year using a randomized-control trial. The program provides KG student-teachers with

guidance through mentorship and in-classroom training throughout their placement year focused on successful implementation of the national curriculum and KG-specific pedagogy, which focuses on activity-based child-centered approaches. This study followed students over the course of two academic years, with impacts assessed on student-outcomes at the end of the school year and the following year when student-teachers were placed as full-time newly qualified teachers (NQTs). It is one of the first longitudinal impact evaluations of a pre-service teacher training program in sub-Saharan Africa (SSA).

#### 1.1. Early Childhood Education Quality

Research evidence has shown that a significant portion of variance in student learning is explained at the classroom level (Gordon, Hanushek, & Kain, 2003), and that features of the classroom context successfully predict student learning outcomes and academic improvement (e.g., Hoxby & Perna, 2005; Woelfel et al., 2010). Process quality, considered the *how* of child learning and development, refers to the nature of children's daily interactions and experiences in the classroom, with a broad focus on the social, emotional, physical, and instructional aspects of activities and interactions. Structural quality refers to regulable resources, such as class size, student-to-teacher ratio, and teacher training and education (Eise, Leonard, Voelgel, & Mullan, 2015) and is considered important for improving learning outcomes only to the extent that it promotes process quality (Pence et al., 2010; Seidman & Torry, 2013). While the majority of evidence on the importance of pre-primary classroom quality in promoting learning comes from U.S. contexts (see Yoshikawa et al., 2013), increasing

<https://doi.org/10.1016/j.steval.2018.08.001>

Received 27 December 2017; Received in revised form 30 March 2018; Accepted 1 May 2018  
0191-6263/© 2018 Elsevier Inc. All rights reserved.

# Impacts of Pre-Service Training and Coaching on Kindergarten Quality and Student Learning Outcomes in Ghana

Using a randomized-control trial, this study evaluates a program designed to support Ghanaian kindergarten student-teachers during pre-service training through mentorship and in-classroom training. Several potential barriers to improved teaching quality and learning outcomes are examined. Findings show that the program improved knowledge and implementation of the national curriculum for individuals both when they were student-teachers and, the following year, when they became newly qualified teachers (NQTs). There were mixed impacts on professional well-being, increasing personal accomplishment and motivation but decreasing job satisfaction for NQTs. There were mixed impacts on teaching quality, with increases in child-led learning but decreases in some other aspects of quality.

There were no impacts on NQTs' student learning outcomes. The findings highlight system level challenges with both the posting of NQTs and the absence of support in their first teaching year. Implications for global early childhood education policy and teacher education are discussed.

March 30, 2018