



INTED participants join the Chief and Queen Mother of Jumapo, Eastern Region of Ghana, and other guests at a town hall event in December 2023.

Master Fellows Program spreads learning across Ghana

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Facilitating high-quality professional learning on a large scale poses financial and logistical challenges, especially in the developing world. However, in the West African nation of Ghana, amid the national

expansion of access to public secondary education, a private sector-led teacher leadership program shows how peer support and train-the-trainer models can build capacity to improve teachers' instruction and students' learning.

The Institute of Teacher Education

and Development (INTED) was founded in Accra, Ghana, in 2011, thanks to a fellowship from Stanford University. The institute is a nongovernmental organization whose objective is to improve learner outcomes by supporting the



Trainers and candidates at INTED's first Master Fellows Academy, held in 2012.



Teachers share ideas during a group activity at an INTED session in the Eastern Region of Ghana in March 2024.

professional growth of educators. At the center of INTED's model is a professional learning initiative for teacher leaders called the Master Fellows Program.

The Masters Fellow Program builds the capacity of teachers to become instructional leaders who support professional learning communities, engage other educators in the institute's professional learning activities, share their experiences at conferences and community events, and act as mentors and champions of teachers.

Over the past 13 years, the program has led to continuous improvements in teaching and learning in schools in most regions in Ghana. The experience and the ongoing efforts to scale the program across the country offer lessons about improving educator growth and student learning, even in the context of infrastructure challenges.

SETTING THE STAGE

In 2017, the government of Ghana expanded free and compulsory pretertiary (preuniversity) education to all public senior high schools or students ages 16-18 years old as part of the Free Senior High School policy.

Before that, the country had free and compulsory basic education for K-9 students, but many students did not have access to secondary education — in part due to fees required to attend, inadequate space, and low testing scores at the end of middle school. As a result of the Free Senior High School policy, the government of Ghana has improved access to secondary education and taken commendable steps to improve the regulatory environment for teachers.

However, an evaluation by Dwomoh et al. (2022) shows a significant decline in quality of educational outcomes and academic performance for secondary students after the policy was implemented and access was expanded.

A number of factors may have contributed, including the fact that many schools began a double-track system, in which students alternated attending school for 81 days and taking vacation for 41 days, to accommodate the large increase in the student population (Dwomoh et al., 2022). Interviews from the evaluation suggested that inadequate teaching and learning materials may also have been a factor.

At the same time, professional learning for teachers was not meeting teachers' and students' needs, despite some government initiatives that were well-intentioned but inappropriately applied. As an example, in 2020, the Ministry of Education of Ghana began providing teachers with an annual professional development allowance. However, the timing of the allowance was at the end of each year near the holidays. Coupled with teacher salaries that were so low that most educators required a second job to make ends meet, this meant that many teachers spent the money on things other than professional development.

In this context, INTED saw a great need to support educators to use learner-centered pedagogy with 21st-century skills to enhance the achievement of all learners (Vavrus et al., 2011). Unfortunately, opportunities for high-quality continuous professional learning that have been shown to improve teaching and learning outcomes are still infrequent for most teachers in Ghana.

Classrooms are teacher-centered rather than student-centered, and learning remains predominantly by rote

memorization. The institute’s goal is to help address these issues and contribute to Ghana’s attainment of the United Nations Sustainable Development Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

THE INTED MODEL

The INTED model begins with the Master Fellows Program, which is a program designed to build the capacity of local teachers to facilitate professional learning and support colleague teachers. Following the first cohort in 2012, Master Fellows have identified future candidates from among the teachers they have worked with to implement improved teaching practices.

The Master Fellows Program helps develop the pedagogical skills of teachers and build social cohesion and collaboration among them and across schools. It also provides opportunity for monitoring and support, evaluation for learning, and review sessions to enable teachers to address identified gaps.

Senior Master Fellows, who have been with the organization as Master Fellows for 10 years and have supported at least 10 schools or 500 teachers, also monitor and support Master Fellows as they work with teachers and while teachers work with students.

The INTED model draws on the professional learning communities work by Hord (1997), which derived from the seminal work by Senge (1990) on learning organizations in the corporate world. Hord’s five dimensions of professional learning communities

(PLCs) were adopted with some modifications to form the theoretical underpinnings for the INTED model. These are:

1. **Supportive and shared leadership:** Leaders are involved and engaged in the PLC and are ready to delegate responsibilities, listen to teachers’ ideas, and share decision-making. Through reflective practices, teachers who adopt INTED practices are able to support their peers during PLCs, which are now nationally mandated.
2. **Shared norms, values, and vision:** Participants have common beliefs about institutional purposes and practices, understanding of educational policies and cultural values, and a strong, shared commitment to students’ learning.
3. **Collaborative learning:** Teachers engage in collective learning and apply this learning to meet students’ needs. INTED believes that teachers know the source of the real problems in their classrooms and therefore the kinds of solutions that will work.
4. **Deprivatization of knowledge and practice:** Teachers continuously and collaboratively review their pedagogical practice with an eye toward improvement. Master Fellows facilitate interactive and reflective sessions called design studios where teachers try out and hone

instructional strategies.

5. **Supportive conditions:** Learning and improvement are dependent on conducive and relational structures. INTED’s work promotes a culture of trust and respect through collegial relationship building, seeks partnerships with technical experts and financial sponsors to support its teacher capacity building, and has recently initiated research-based monitoring and evaluation for learning.

This model positions the PLC as a learning ecosystem that creates an organizational culture focused on student learning through improvement in teacher practice (Blacklock, 2009). Through the five dimensions, we have seen our teachers engage in collaborative, collegial, and collective learning as well as develop trust and mutual respect and appreciation.

The institute’s theory of action articulates that its activities with educators should lead to elevated student-centered instruction that leads to improved student learning outcomes. Through our monitoring, evaluation, and learning work, we have found four components that are essential to achieving this chain of effect:

- Articulate a set of research-based teaching practices and associated instructional strategies for Master Fellows to implement with their peer teachers.
- Build Master Fellows’ common understanding of how teachers



Bernice Anane, an INTED Master Fellow, facilitates a session at Ghana National College in October 2023.



Master Fellows Faith Aku Dzakpasu, seated left, and Barikisu Suleiman, seated right, won national teaching awards in 2023. With them are INTED staff members. Photo by Kezia Amartei

develop their professional practice.

- Create conditions and organizational infrastructure for ongoing professional dialogue about instruction and improvement among teachers.
- Foster a professional culture that expects teachers to engage in instructional change that leads to a more equitable learning environment for all students.

THE IMPACT OF MASTER FELLOWS

Several evaluations have been conducted on the Master Fellows Program, including those by Ravi (2012), Acheampong and Wumbee (2016), MKA Education Services (2021), and INTED. These and other analyses have shown that participating teachers who worked with Master Fellows have adopted new learner-centered pedagogy in classrooms.

INTED uses lesson and learner observation tools that are aligned to Ministry of Education standards. Master fellows use these tools to observe lessons presented by beneficiary teachers, and students' reactions to those lessons, to identify areas of progress and need, identify training and support gaps and how to fill them, and

provide feedback to teachers.

These also provide a source of data for us. INTED has found that, in most cases, teachers are meeting expectations by adopting and using the 21st-century pedagogy and strategies that were introduced to them through the program.

Another indicator of success comes from school- and department-level reporting of student learning. Though data is yet to be fully analyzed on student-level impact, there are a number of success stories from individual schools, including the Ministry of Education's reclassification of schools based on performance data. For example:

- The number of Akokoaso Senior High Technical School students who passed a secondary level terminal exam increased from 4 to 22 — the highest rate ever — a year after INTED's program.
- The number of Aburi Girls' Senior High School students receiving grade A increased steadily from 8 in 2013 to over 200 in 2017, after implementation of multiple INTED training and support programs.
- Anum Presby Senior High School was reclassified from a Category

C to Category A school in two years, following implementation of multiple INTED programs.

- Two Master Fellows won the "overall best" and "primary" level awards at the 2023 Ghana Teacher Prize.

We have also viewed the growth of the program using the lens of Coburn's (2003) framework for scale of education reforms, which includes four components: depth, sustainability, spread, and shifts in reform ownership.

Depth: Reflecting the model's depth of change, documentation of teacher reflections and the observation tools described above show changes in teachers' philosophy of teaching and learning, including teachers embracing the importance of active student engagement, critical thinking, and the belief that all students are able to participate in and benefit from disciplinary discussions. Evidence also includes increased subject-specific curricula design.

Sustainability: Evidence of the program's sustainability comes from Master Fellows' growing support of the model even through periods of limited financial support; increasing requests and support from schools and teachers for INTED's model; and increased collaboration among teachers at



Master Fellow Faith Aku Dzakpasu, right, facilitates a design studio session with her peers at Odorgonno Senior High School in Accra, Ghana, in April 2023.



Master Fellow Barikisu Suleiman facilitates a session with her peer teachers at Odorgonno Senior High School in Accra, Ghana, in April 2023.

participating schools (e.g., joint lesson planning, peer observation of lessons, involvement in impact data collection efforts, participation in training of subject heads and teacher leaders).

Spread: Over the initial 10-year period ending in 2021, three Master Fellows Programs built the capacity of 66 teacher trainers, who facilitated professional learning programs for at least 3,500 teachers in over 70 schools by influencing their own and other schools to subscribe to INTED’s programs, reaching an estimate of over 100,000 students per year by the end of the period. This impact is possible thanks to the generous support from funders, including the Ghana Skills Development Fund, the U.S. Embassy in Ghana, and other local sponsors.

Shifts in reform ownership: Ownership of the model has begun to shift so that it is increasingly accepted and held by not just teachers and schools who have directly experienced its benefits, but also by district education officers, regulators, and community leaders. Multiple participating schools have subscribed to follow-up programs from INTED, even in an environment with competition from more than 30 other licensed professional learning providers.

Districts and municipalities have also expressed interest in participating

in additional programs, with most willing to commit resources, based on positive experiences with prior programs. Local stakeholder interest in the model is also growing, with members sharing their INTED experience at conferences and a series of town halls with community leaders, regulators, and regional leaders of education.

LESSONS LEARNED

Along with the successes, INTED has faced some challenges and learned lessons about how to improve the program going forward. Some of these needed changes are within our locus of control, while others are not.

Because teaching in Ghanaian public schools involves a heavy workload under challenging conditions, low morale among teachers needs to be addressed creatively to inspire teachers to do more. INTED’s strategy to improve morale is to provide opportunity through its Master Fellows Program and other programs for collective thinking and collaboration among teachers and administrators as well as engagement with parents and community leaders through town hall meetings to develop a shared vision, boost morale, bring back the joy in teaching, and improve student outcomes.

It is also important to ensure that teachers have developed deep understandings of the innovations and can practice them with ease before trying to spread the innovation to other schools. Building trainer capacity takes time, resources, deliberate effort, and a resolve to continue to address gaps.

With peer professional learning in our low-resource environment, neither INTED nor schools have the resources to sustain training, monitoring, and support that results in deep understanding and ease of practice. This has been the model’s biggest challenge, and INTED is working to improve with partners and stakeholders.

Looking to external structures and stakeholders, experience shows that professional learning is most effective when the designers work closely with regulators at the appropriate level: e.g., national, regional, municipal, or district to plan, implement, and follow up for learning.

For example, about a third of Master Fellows do not remain active with the program and follow through to facilitate training to and support their peers. We believe this attrition is related to multiple factors, including funding and travel issues but also factors requiring a closer collaboration with regulators and school administrators,

such as teachers' schedules and teachers leaving their schools or the profession.

As another example, amid the aforementioned Free Senior High School policy that requires a double-track system to reach all students, senior high school students spend less time in school than they used to. This shortened contact time between teachers and students has contributed to a pressurized context in which teachers tend to focus on content that will be covered on exams, often reverting to rote memorization strategies rather than instructional strategies that require critical thinking.

In this context, teachers sometimes adopt a checking-the-box attitude to professional learning. This underscores the need for high-quality professional learning like that used in the Master Fellows Program to occur alongside and in collaboration with structural and policy reforms.

NEXT STEPS

In its second decade since 2022, INTED is building up its administrative, governance, and programming capabilities, with support from the United States Agency for International Development and the Ministry of Education. The institute is transforming into a membership-based organization that should boost the ongoing shift in ownership and, over time, its sustainability. With the completion of the fifth Master Fellows Program cohort, INTED is aiming to support 4,126 additional teachers in over 360 schools by 2027, reaching over 90,000 students per year by 2027.

We are also expanding depth by working with Master Fellows to conduct research studies on the fidelity of implementation as well as randomized control trials to assess the impact on student learning.

Looking into the future, INTED is seeking to expand offerings to include online learning opportunities to ensure that greater numbers of teachers and schools can access its programs at lower costs and improved convenience. We intend to develop modules in bite-sized forms and create a learning management system to support it.

We believe that by using a mix of in-person and virtual engagement opportunities, Master Fellows can be supported to extend their impact from thousands to tens of thousands of teachers, who can possibly bring 21st-century pedagogy to extend the impact on learning outcomes from hundreds of thousands to millions of students.

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