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**Title** Mobile mentoring for strengthening teacher preparation in low resource settings: A comparative study of two teacher education programmes in Uganda.

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## **Mobile mentoring for strengthening teacher preparation in low resource settings: A comparative study of two teacher education programmes in Uganda.**

### **Abstract**

Teacher education pedagogy in Africa is in need of a reform (Akyeampong, Lussier, Pryor & Westbrook, 2013). Mobile technologies can potentially transform teacher education pedagogy (Schuck, 2016, Ally, Grimus & Ebner, 2014). This study explored teacher-trainees readiness, usage and perceived gaps for mobile mentoring during field placement. Entry logs data from a mobile mentoring platform was collected for three months as well as, interviews, and a survey. Platform data reveals teacher-trainee experiences on using the platform as a mediating tool. Findings indicated an increasing trend in integrating mobile mentoring during field placements; variations in perceptions and attitudes on usefulness and usage patterns; engagement with mobile mentoring has mentoring support benefits. Several technological and pedagogical affordances support mobile mentoring integration into teacher education. These findings have been interpreted to determine their implications on the development of mobile mentoring experiences in teacher education in low resource settings.

### **Introduction**

Despite their potentialities, the actual growth of Information Communication Technologies-ICTs in Least Developed Countries (LDCs) is hindered by a number of factors including infrastructural constraints (Imran, Quimno, Hussain, 2016). However, the upsurge of mobile devices in LDCs, devoid of ICT infrastructure has emerged as an important means to bridge the long standing digital divide between LDCs and First World Countries (Bailard, 2009). Mobile computing accelerates the diffusion of various services (government, business, health education and environment) through mobile devices. It's this opportunity that needs to be explored in strengthening of teacher preparation programmes in low resource settings. The competence-based requirements of teacher education (practice-based learning) (Ministry of Education and Sports, 2015) means that the focus of electronic mentoring solutions will not so much be on tutoring teacher trainees through the curriculum but more toward mentoring them throughout their development pathway across the educational and professional settings. Therefore, adaptive mobile mentoring systems need to address throughout their design and development, tools and mechanisms that need to be deployed, and the conditions for teacher trainees to adopt and appropriate such a tool during their practice-based teaching (and also for lifelong professional development).

### **The Context**

The context of the adaptive mobile mentoring system is the three year Bachelor of Education Programme in Makerere University. Makerere University is the largest provider of pre-service teacher education in Uganda, with a pre-service teacher population of 4500, and graduating over 1000 pre-service teachers per year to join the teaching profession as secondary school teachers. With such a large pre-service teacher population there is need to provide blended mentoring through technology-enhanced mentoring solutions and mentoring

opportunities in order to provide quality teacher preparation. On the pre-service programme, pre-service teachers are required to spend 16 weeks of field placement/ practicum experience in secondary schools across the country to receive support supervision and mentoring from supervisors from the University.

While it is assumed that placement of pre-service teachers in schools and allocation of supervisors will lead to support supervision and mentoring, the dispersed locations of students leads to communication gaps between and among pre-service teachers and supervisors. Moreover, due to dispersed locations of schools, pre-service teachers continue to be isolated, and present similar problems of inadequate mentoring support. Research evidence indicates that supervisors spend very limited time with teacher trainees during field placement supervision leading to ineffective and/or inadequate mentoring support and supervision (Sikoyo, et al, 2013). This is compounded by the high pre-service teacher-supervisor ratio, brief face-face mentoring sessions and dialogues before and after supervision and inadequate information on how to solve and manage everyday classroom situations as they arise. This is compounded also by the lack of digitized teacher learning and mentoring resources that teacher trainees can access off-campus. This is further exacerbated by the type of school whether a school is government aided, whether a school is rural or urban, and whether the school is endowed with resources.

The study investigates teacher-trainees readiness, usage and gaps for mobile mentoring during field placement in two public universities in Uganda. Particularly the study explored perceived usefulness, self-reported proficiency, intention to adopt and use during field placement. This study takes a different direction from my earlier work using activity theory to understand what teacher trainees and teacher educators do with technology at Makerere University (Najjuma and Mulumba, 2016) to a critical theoretical perspective to educational technology use and adoption. This model of critical educational technology (Feenberg, 1991,2002, Boudieu, 1978) rejects technological determinism and is based on the premise that power relations, social capital and reproduction of social inequalities has an influence on participation, engagement, communication, interaction on the mobile mentoring platform by both the teacher trainees and teacher educators. The work of Bourdieu and Feenberg, offer a powerful tool to analyse social capital, power and participation dynamics in the technological design processes, and how they can potentially perpetuate digital inequalities.

## **Methodology**

A mixed methods research approach was used. Mobile mentoring platform log analysis, interviews and a survey questionnaire were used to collect data from teacher trainees and teacher educators. Findings indicated that, (a) there is an increasing trend in integrating mobile mentoring in teacher education during field placements; (b) variations exist in perceptions and attitudes on usefulness and usage patterns; (d) engagement with mobile mentoring has reduced the communication gaps and facilitated provision of timely mentoring support. Several technological and pedagogical affordances support mobile mentoring integration into teacher education settings. These findings have been interpreted to determine their implications on the development of mobile mentoring experiences in teacher education, in low resource settings.