Exploring the use of a WhatsApp bot to influence online Continuous Professional Development of teachers in Rwanda

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INTRODUCTION

Worldwide shift from in-person to online Continuous Professional Development (CPD) of teachers and school leaders. In Rwanda, online CPD is organised on Moodle by the University of Rwanda – College of Education in collaboration with VVOB. Trainees experience challenges on 2 levels:

- Quality of learning (motivation, self-regulation, equity)
- Intensity of learning (learning outcomes)

OBJECTIVES

Extend CPD with conversational learning through a WhatsApp bot

- Learning as simple as having a conversation
- Automated and human support agent
- Microlearning: reminders, motivational messages, quizzes, follow up messages in case of non-activity, short snippets of content

1. Do trainees who receive microlearning support have a higher quality of learning than those who don’t receive this support?
2. Do trainees who receive microlearning support have a higher intensity of learning than those who don’t receive this support?

METHODOLOGY

WhatsApp bot deployment in 2 CPD programmes:
- Educational Mentorship and Coaching (EMC) for School-Based Mentors and Sector Education Inspectors (session 4: 4 weeks)
- Educational Mentorship and Coaching in STEM (EMC-STEM) for School Subject Leaders (session 2: 6 weeks)

Treatment – control (n = 417)
Unit of randomization = district

- Moodle analytics
- WhatsApp analytics
- Assessment scores
- Satisfaction survey
- In-depth interview

RESULTS

Intensity of learning

Three clusters of participants:
1. Early onboard and low engagement
2. Early onboard and high engagement
3. Late onboard and low engagement

Cluster 2 trainees had better assessment scores.

Motivation and self-regulation

WhatsApp and course videos yielded highest satisfaction scores.
WhatsApp reminded trainees to submit assignments.

“...ELEWA (red. the chatbot) was helping me to access the content by providing the link of the course contents”

Equity

Moderate correlation between finding the course content challenging and finding the use of Moodle challenging.
While enjoyment of activities on Moodle decreases, WhatsApp becomes more enjoyable by older age groups.

Quality of learning

CONCLUSION & RECOMMENDATIONS

Scale-up of research to a full CPD programme

- Different indications that WhatsApp bot aids quality of learning for trainees.
- Further research needed if the WhatsApp bot aids the intensity of learning for trainees.

Attention points for further research

- Early onboarding of trainees (sign-up workshop)
- Within-district intervention study to avoid ‘district effect’
- Explore the relation between digital literacy skills and CPD learning outcomes