

From Teaching to Teacher Training: Embedding Important Skills Needed to Develop a Teacher Trainer in Cascaded Teacher Professional Development Programmes

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Abstract: Cascaded teacher professional development (TPD) programmes can train many teachers within a short time frame compared to other models of teacher training. This is because trainers are teachers. Implementation of cascaded teacher training has been faced with many challenges as it puts emphasis on content knowledge. Trainers at different levels of the cascade model differ in terms of knowledge and skills. While many cascaded TPD programmes aim at creating secondary trainers, they are always trapped into transferring content knowledge alone to trainees. Skills are also needed to ensure they can transfer the learning to their contexts. This study used design based implementation research (DBIR) methodology in the design, development and implementation of the workshops that aimed to impart skills teachers need to become effective teacher trainers. Two content workshops with school teachers as participants were conducted, each followed by one skills workshop with 11 and 4 teacher trainers and experiences shared. The teacher trainers were selected based on set criteria at different stages. Analysis of open-ended data from teacher trainers showed that trainers mastered the skills and highlighted first steps when planning for a solo teacher training activity. This study contributes to the teacher training developers because, apart from the knowledge about the content, effective teacher trainers need different skills including skills on how to plan, conduct and evaluate teacher training workshops, participants and their contexts; development of activities and training materials, while preparing for a solo training.

Keywords: Cascade model, teacher trainers, secondary trainers, skills workshops, teacher professional development

1. Introduction

Teacher professional development (TPD) has been defined as activities that develop an individual knowledge, skills and attitudes as a teacher as they improve their teaching practices (Schleicher, 2009). Researchers emphasize that TPD activity should lead to improved knowledge in the domain area and teaching practices (Antoniou & Kyriakides, 2013).

Effective TPD involves preparations in terms of training materials, process and trainers. While there are many approaches to TPD, workshops and seminars are the dominant modes of TPD in Tanzania. Teacher training workshops are faced with challenges such as too much content within a short time; very little time for teachers to reflect and focus more on content knowledge (Desimone, 2009). Even for practical based workshops, there is still a challenge of time to practice for the purpose of gaining deeper understanding of the content.

Many TPD activities in Tanzania are mainly planned and executed following a cascade model. Cascaded TPDs are associated with different challenges during implementation. These challenges can be categorized as design-related and trainer-related. From design perspective, cascaded TPDs have a top-down design approach (Komba & Mwakabenga, 2020); longer periods between cascade levels and one-way transmission. Literature has hinted out some of the trainer-related challenges as lack of confidence (Engelbrecht et al., 2007); curriculum misinterpretation (Suzuki, 2011); and dilution of the teaching content (Hayes, 2000).

This research focused on developing teacher trainers, looking into the skills needed to be able to successfully plan, conduct and evaluate a teacher training program. This study focused on finding answers to the following research questions (RQs).

RQ1: What personal skills do school teachers need to develop into school teacher trainers?

RQ2: How do teachers reflect about their past teacher training experiences after the skills workshop?

RQ3: How do teacher trainers prepare for solo training workshops?

2. Research Methodology

This research followed a Design Based Implementation Research (DBIR) methodology (Fishman et al., 2013). This methodology is suitable because it involves a series of refinements and iterations to improve the intervention to the problem being solved. Figure 1 shows the different phases of DBIR.

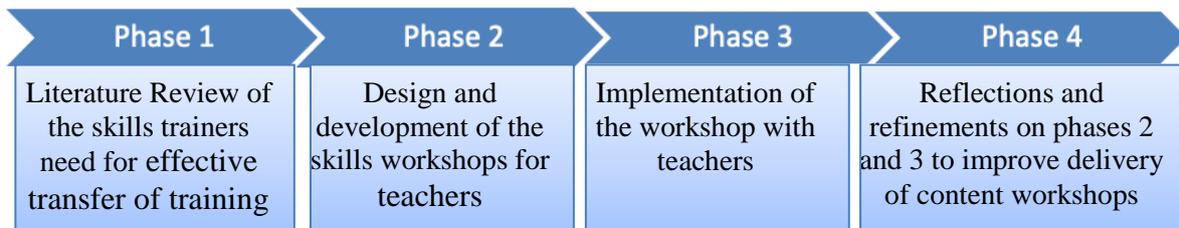


Figure 1. DBIR Phases

2.1 Phase 1: The Skills Needed

Literature has highlighted the different skills any trainer needs to be effective. Experience in the area and facilitation skills are key to successful trainers' sessions (Ng & Lam, 2015). Another important aspect for teacher trainers is communication skills (Leach, 1996). This goes hand in hand with listening skills that are required when listening to the trainees' questions, presentations, and provide effective, timely and constructive feedback (Stolovich, 1999). To ensure that we imparted skills to the trainees who were transitioning to become teacher trainers, we developed two skills-based workshops.

2.2 Phases 2 and 3: Design, Development and Implementation of the Skills Workshops

Two skills were designed and developed based on the Attain Align Integrate (A2I) model (Warriem et al., 2014). These workshops were implemented in schools with teachers as participants. The details for each of the two workshops are discussed in the next subsection.

2.3 Phases 4: Reflections and Refinements on Phases 2 and 4

At the end of Skills Workshop 1, an evaluation study was conducted to determine areas that would need improvement and refinement for the next content workshop. These refinements led to iteration for Content Workshop 2 (CW2). In this way, the model for developing teacher trainers got improved and became more generalizable.

3. Skills Workshop Details and Data Collected

3.1 Skills Workshop 1 (SW1)

SW1 workshop involved 11 secondary school teachers all from different regions to Morogoro region in Tanzania. The 11 teachers had participated in the Content Workshop 1 (CW1). CW1 is a teacher workshop that aimed at training teachers on selected modules on ICT integration in teaching and learning. 26 teachers participated in CW1. Figure 2 shows the different content workshops (in yellow outline) and skills workshops (in blue). The number of participants per workshop is shown.

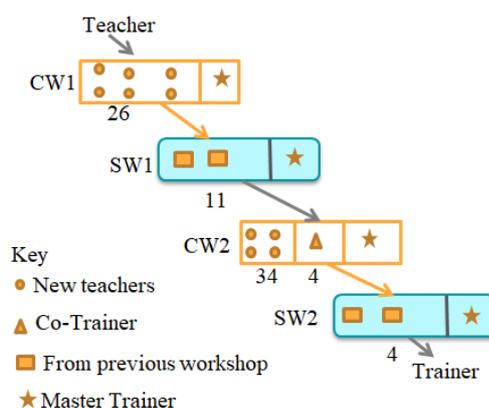


Figure 2. Content and Skills Workshops.

To participate in SW1, participants met the following conditions: i) They had participated in CW1; ii) They should have applied what they gained in CW1 in their schools either through teaching his/her subject or sharing experience with other teachers; iii) Intrinsic motivation to participate in the skills workshop and iv) knowledge of some ICT tools. 11 teachers were selected to SW1 and were all males, with over five years of teaching experience. While most of the participants had some teacher training experience, only two have not had a chance to train teachers before.

SW1 was blended in such a way that, participants had first to complete four online activities (created in Moodle learning management system) that would make them join the face to face workshop a month later in Morogoro. Table 1 shows the online activities to impart the intended skills.

Table 1: *Online Activities for Imparting Teacher Training Skills*

Skill	Activity
Conducting needs analysis	Activity 1: Summarizing the details of the previous participants from Workshop Entry Survey
Contextualizing workshop content	Activity 2: Given sample topics to be covered during the workshop. Learners to go through the workshop materials and adapt them for their sessions
Question forming skills	Activity 3: Given a PI question and made to decide whether the given PI question is an effective question
Observation skills	Activity 4: Given a video case of one of the previous sessions of teacher workshops and then to observe the actions happening during the sessions

Face to face workshop session was conducted for two days in Morogoro, in December 2019. Day 1 involved a recap of the online activities submitted by participants. We also discussed on adult learning principles and how to incorporate them in the training. Day 2 focused on how to plan, conduct and evaluate teacher training programmes, including training requirements, managing training sessions and the Kirkpatrick model of training evaluation.

3.2 Skills Workshop 2 (SW2)

After SW1, selection criteria were set to select those who would become co-trainers in the next content workshop. The selection criteria included: participation in the previous skills workshop; confidence to train a small teacher training session in the next workshop; and availability for the next workshop in another new location (Mwanza). Only four participants met the criteria and were available for the next Content Workshop 2 (CW2). CW2 focused on helping the trainees from SW1 to apply all they had learnt. CW2 consisted of the same set of topics from CW1 but conducted to a new group of teachers in a different context (in Mwanza region). In CW2, the four trainees participated as co-trainers, working with the master trainer to ensure effectiveness in conducting the workshop. Before the workshop, the four co-trainers, each, were given a topic to prepare and train for duration not more than two hours. The

goal was to apply the skills obtained in SW1 to a new context. Analysis of the data from this co-trained workshop revealed that more skills were needed to ensure that the co-trainers could be able to take up and engage in the sessions at the level that would increase independence.

SW2 focused on imparting more skills to the co-trainers to increase more independence when planning, conducting and evaluating teacher training workshops individually. This was a full online workshop that consisted of a one hour per day for 4 days. This involved the four co-trainers who participated in CW2. The topics emerged from reflections of participants in CW2 and are as listed below:

- i. The training Cycle: To apply the steps while planning, conducting and evaluating the training
- ii. Positive Climate in the Training Room: To manage the training room and emotion regulation
- iii. Group Activities: To develop activity design skills, building confidence and presentation skills
- iv. Evaluating the Training: Training evaluation skills.

3.3 Data Collection

For the study, different data collection methods and instruments were used. For each research question, one method was used to collect data. To know about the different skills teacher trainers need to become teacher trainers, we did a literature search. We used the following keywords: trainer skills, effective trainers, personal trainer skills, and training skills development. The skills identified as useful to the teacher trainers were used in designing and developing SW1.

During SW1, an interview protocol with six open-ended questions all focused to the co-trainers was used to collect data on reflections from teachers who joined with some teacher training experiences. The question being asked here was “*What has changed in terms of your teacher training sessions you had before completing these workshops?*” Their responses were recorded.

At the end of SW2, Google form was used to collect data from participants on their preparations for their solo teacher training sessions in their own contexts. The given scenario reads as: *A school in Arusha region has invited me (Master Trainer) to offer a 3-days teacher training to all 37 teachers in that school during this coming holiday (from June 7-9, 2021). I am planning to involve you to be the main trainer. I will support you via Zoom. How will you go about this training workshop?*

3.4 Data Analysis

To find out the different skills trainers have to improve their training sessions, we did a literature review search using different keywords. These skills were categorized and are discussed in the results section.

The six phases of thematic analysis (Braun & Clarke, 2006) were used to generate themes for the co-trainers previous experience with teacher training during SW1. The collected data were first read and re-read to immerse into the data. Coding was done by the researcher, and initial codes were then generated from the data to identify some features from the data. The different codes were then sorted to generate initial themes by combining some codes to create a more meaningful theme. The themes generated were then reviewed and categorized and to create final themes as shown in Figure 3.

For the open-ended responses from the four co-trainers, summative content analysis (Hsieh & Shannon, 2005) was used to capture the occurrences of specific training preparation keywords in the responses for data collected during SW2. The frequencies of the keywords with the speaker or source were then identified. Finally, meaning and implication of the keywords were explained.

4. Results and Discussion

RQ1: What personal skills do school teachers need to develop into school teacher trainers?

Even though some co-trainers possessed a number of skills based on their experiences, workshop participants could identify some missing skills that co-trainers needed in order to improve their sessions. Workshop participants identified high voice, confidence and presentation skills as missing from the co-trainers sessions. Again, literature has highlighted different skills that trainers in teacher training programmes need to possess. Knowledge of participants and their contexts, question formation skills (Ng & Lam, 2015), observation skills and pedagogical knowledge of the content area

are important skills. Other relevant skills include presentation skills, conducting and evaluate training (Leach, 1996). Different skills are needed to create an effective trainer.

RQ2: How do teachers reflect about their past teacher training experiences after the skills workshop?

Figure 3 depicts the themes generated from co-trainers experiences with the previous training sessions in their own contexts. It is clear that, the skills workshops have made a change in the ways co-trainers used to train in their schools. Training evaluation is one of the components for a successful training as hinted by (Aypay, 2009). The statements give a sense of a change that they will apply when they start planning for their individual teacher training workshops in their schools or beyond.

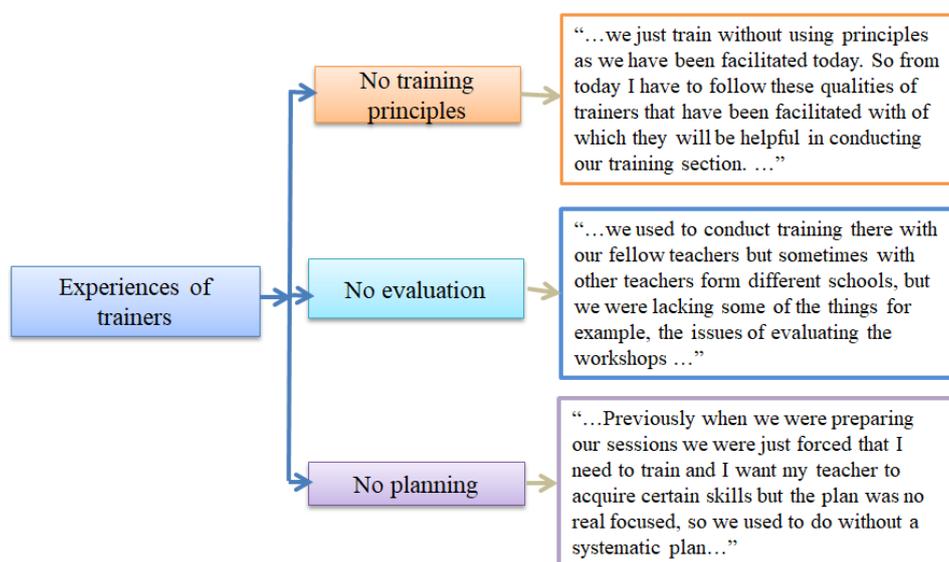


Figure 3. Themes on Experiences of Teacher Trainers.

RQ3: How do teacher trainers prepare for solo training workshops?

Planning, conducting and evaluating a training workshop is an important component in managing a teacher training. Even though the keywords are all self-preparation, support from the mentor is important (Feiman-Nemser, 2012). When asked about the preparations trainers would make to conduct solo training programmes, a number of keywords were mentioned, as shown in Table 2.

Table 2. Important Codes Generated by Trainers

Keywords/Codes	Frequency
Participants' needs analysis	4
Training action plan	3
Material preparation	4
Development of learning activities	3
Training evaluation	3

5. Research Implications

Successful cascaded teacher training programmes need secondary trainers who are experienced in teacher training. The first level of experience is by giving the trainee a chance to co-train the same session. This gives him/her one level of familiarity with the content and hence avoiding problems of misinterpretation of the content and dilution of the workshop content. On top of that, trainers have to go through a number of content and skill workshops that will make them competent to deliver a teacher training programme. The number of solo training workshops at one level will depend on the number of trainers made after CW2. Participants from the first solo training session become learners who then change their roles to co-trainers and then trainers in the preceding workshops. In this way the training programme becomes sustainable. Going through several workshops ensure content mastery to reduce

dilution and distortion of the content. While certain skills might be highlighted in the training schedule, a follow up needs to be done to ensure the skills are being implemented during the training sessions. More skill practice time via different workshops is important to the development of a teacher trainer.

6. Conclusion

Teacher trainers need to be trained on different skills to be effective to train other teachers. Challenges of cascaded teacher training program such as lack of confidence to train others as the training moves to lower level of the cascaded TPD is minimized or reduced. Other challenges such as dilution of the training content and misinterpretation of the content are also minimized or removed completely as the trainers go through the same workshop content in CW1 and CW2. Based on the skills workshops conducted to teachers, this research suggests that trainer development is a process that needs time and skills to handle the training sessions.

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