

**In-Service Teacher Training and Professional Development of Primary School Teachers
in Uganda**

Jackson Nzarirwehi
Kampala International University, Uganda

Faith Atuhumuze
Makerere University, Uganda

Abstract

In 1994, Uganda's Ministry of Education and Sports introduced Teacher Development Management Systems, with the sole aim of supporting and enhancing professional development of teachers through in-service teacher training. Though the training has increasingly motivated teachers into upgrading their academic qualifications, research has not established the effect of the training on professional development of teachers and loopholes, assumptions and misconceptions still persist two decades after the inception of the Teacher Management Systems. Using primary data collected in 2016 from the southwestern Uganda districts of Bushenyi, Rukungiri and Sheema, this study attempts to examine this issue. Key informant interviews and questionnaires were used to collect data from a sample of 610 primary teachers and education stakeholders selected for the study. Findings show that in-service teacher training has a significant effect on teachers, particularly on their academic qualifications, performance, and professionalism. However, these benefits can only be realized when the training is properly planned, implemented and continually evaluated, and in the presence of certain resources and incentives. To this end, the study recommends a review of teacher training approaches and a revamp of school environments to facilitate the teaching-learning process.

Keywords: teacher, in-service teacher training, Uganda, professional development, education

Introduction

In-service teacher training is globally practiced with the belief that it fosters professional development of teachers. Specifically, the training has been adopted to promote continuous improvement of teaching staff, eliminate differences within the background preparation of teachers, keep the teaching profession abreast of new knowledge, enable realization of creative innovations, and facilitate teachers to tackle responsibilities associated with the changing learning environment (Osamwonyi, 2016; Sheth, 2004). According to Bramley (1991), in-service training is the systematic development of attitudes, knowledge, skills, and behavior patterns required by teachers to perform adequately at their given task or job.

In Uganda, education sector reforms such as in-service teacher training were reignited in 1987 to revive the education system, which had collapsed due to political turmoil. The Education Policy Review Commission (EPRC) was appointed to assess the education sector and give recommendations towards policy restoration and improvement. Key indicators of quality of education in Uganda such as cohort survival rates, pupil/teacher ratios and teacher attrition had worsened to an extent where the existent education system could not fulfill anticipated objectives (Eilor, 2003). The acknowledgement of a failed system instigated the inception of Teacher Development Management Systems (TDMS) in 1994 to reinforce the teaching workforce. TDMS was implemented with a single main objective of improving quality and equity in provision of primary education through improved school management and quality of instruction (teaching). Through implementation of a number of in-service strategies and activities, TDMS sought to equip head teachers and teachers with the necessary skills, with an ultimate goal of fostering effectiveness (Ministry of Education and Sports, 2010). This work presents an analysis of the effect of in-service teacher training on professional development, including attitudes, practices and professional grounding of primary teachers in Uganda.

Literature Review

Emphasis is placed on the role of education and teacher training agency towards national, social and economic development. This calls for continuous development and improvement of professional competence of education stakeholders. In-service teacher training is pursued with the primary goal of ensuring continued improvement in the capacity of academic institutions and the entire education system (European Union, 2013). In-service teacher training is thus defined as a central component of professional development of teachers that has been adopted by policy makers and education departments to orient teachers and equip them with skills aimed at enhancing the quality of education. On the other hand, professional development is a recurring process instigated by changes in knowledge, beliefs, and attitudes among teachers and other education service sector workers towards improving learning outcomes (Cooper, 2004; Sparks & Richardson, 1998).

Rapid technology advancements in the contemporary world imply that teachers' stock of knowledge and pedagogical skills becomes obsolete in a short time. This calls for constant upgrading to keep up with modern trends and knowledge (Wesch, 2009). Yet, new experiences demand new and specifically tailored approaches with regard to teaching methods, which justifies the need for teachers to be exposed to in-service training programs from time to time. This depicts in-service teacher training as a continuous, never ending process focused on acquiring and maintaining knowledge. Simply put, the training

continually equips teachers with new pedagogical skills towards a country's bid to shift the education system towards an outcome-based one (Okiror, Hayward, & Winterbottom, 2017).

Traditional professional development approaches fail to foster changes necessary for inclusive learning (Nishimura, 2014), which calls for in-service techniques that prepare teachers to adopt varied teaching methods, use improved technology and integrate new knowledge, and experiences into classroom practices (Sabri, 1997). Evidence suggests that these enable in-service teachers to teach in inclusive classrooms with relative ease (Sokal & Sharma, 2014). Some of these acclaimed techniques include observation by facilitators, teacher collaboration and co-teaching, and participatory action research (Morales, 2016; Villa, Thousand, & Nevin, 2013). Online techniques have also been pursued (Cavanagh, 2013), but the level of success depends on whether the teachers are familiar with technology, self-motivated, and disciplined (P. Vu, Cao, L. Vu, & Cepero, 2014). In alternative evidence, the introduction of technological advancement does not necessarily guarantee application in teaching practice (Sabzian & Gilakjani, 2013). Nevertheless, all arguments for in-service teacher training and technological and knowledge advancement fall to a few problematic assumptions. First, by ignoring the final consumer of knowledge, the learner, these studies assume that learners will automatically adjust to the ever-changing techniques and easily absorb new knowledge offered by trained teachers. Second, they seem to suggest teachers' learning processes as linear paths towards an ever-shifting optimum knowledge. Third, without a definitive measure of knowledge attributable to technology advancements, evaluation of the training becomes a gamble of assumptions.

In practice, in-service teacher training is recognized as an essential part of the overall process of teacher education, which can be achieved through attending events such as lectures, films, exhibitions, conferences, seminars, and workshops in which practical solutions to current difficulties are introduced and materials required for implementing these solutions produced (Alkuş & Olgan, 2014; Osamwonyi, 2016). These events also provide platforms through which teachers are introduced to new developments and teaching materials to help them in their work, such as new curricular, new methods and innovations, and specific equipment. But the question remains of how these programs are implemented with regard to method and approach and if there is a methodology in place to facilitate the transfer of acquired knowledge from teacher to learner. In a study of in-service teacher training in Nigeria, Amadi (2013) notes that although in-service training has been embraced to counter the inadequacies of pre-service training, it still fails to adequately prepare teachers for the continued changes in teaching techniques and materials. The study attributes continued poor performance of schools to teacher training programs, which are conducted using approaches that are not practical and as a result coerce teachers into "just listening" but not putting into practice the novel teaching methods learned. In-service teacher training in most developing countries, Uganda included, fall victim to such shortcomings whereby teachers are not equipped with transferable and hands-on pedagogical skills. The developing world "train the teacher, train the nation" mentality has culminated in negligence and rigid governments who have washed their hands of all responsibility, beyond the teacher, to facilitate the teaching-learning process. Yet, scholarship on in-service teacher training has found that effectiveness of the training can only be achieved with proper planning and implementation (Zaslow, 2014). This involves among others: pre-training analysis; trainer introduction; orientation of trainees on expectations and benefits of the program; laying emphasis on the need to master content knowledge and garner authentic experiences; and creating and maintaining a stable feedback process between training and application of experiences through reflection and evaluation (Dunst, Bruder, & Hamby, 2015; Ficarra & Quinn, 2014).

Generally, in-service teacher training should motivate teacher professionalism in self-evaluation of strengths and weaknesses, and knowledge and pedagogical skills. In-service teacher training is therefore a capacity building task that stimulates organizational growth and development (Omar, 2014). The training engenders change in human behavior, attitudes, knowledge, skills, and capabilities focused on cultivating professional etiquette required by teachers to perform adequately at given tasks (Guskey, 2014; Kabadayi, 2016). Some studies have, however, found little effect of in-service teacher training on benefits such as content knowledge and skills, and observed a lack of systematic evaluation processes (B. Boyle, While, & T. Boyle, 2004; Lehiste, 2015; Newton, 2013). All these studies point to a difficulty in measuring the impact of in-service teacher training on professional development in definite terms, which poses a challenge for evaluation. To counter this, qualitative approaches have been pursued where, for instance, a change in knowledge may be characterized by having a firm grasp on job requirements and increased ability to make the right decisions in selecting the most appropriate procedure in accomplishing given tasks while a change in skills encompasses ability to communicate, and increased capacity to perform simple procedures and physically grounded actions. However, we note that studies do not agree on definitions of the different factors of professional development. For instance, while Kabadayi (2016) defines it to include teacher roles, and professional and practical knowledge, Dunst et al. (2015) include both teacher and learner experiences. From these studies, we observe contradictions not just on definition but also categorization of variables. For instance, knowledge has been categorized along pedagogical, practical, and content knowledge among others for some studies while others just leave it general. These challenges leave a lot of room for ambiguity and assumption and facilitate a broad and unstable spectrum along which professional development must be measured.

Another challenge for in-service teacher training is that the role of trainers is not clearly defined which implies that training requirements are not properly addressed (Council of the European Union, 2009; O'Dwyer & Atli, 2015). For in-service training to be effective, "backward planning" must be emphasized to ensure that in-service training exactly matches teacher and learner needs and addresses the intended objectives (Bayar, 2014; Guskey, 2014). To truly appreciate the impact of in-service training on professional development, learners must be brought to center stage of evaluation processes (Earley & Porritt, 2014). The intention of in-service teacher training has always been to enhance professional and personal development of teachers to provide its benefits to the students they teach, their classes and schools where they serve (Mahmood, 1999). The ultimate goal here is to improve the teaching-learning process and establish systems that absorb various changes that concern education. According to Zaman (2004), teacher development is fundamental to the quality of the education system and as such demands urgent, careful and continued attention to improve and maintain the quality. The consequent staff development boosts instruction capacity and teacher competence by increasing their command of their academic subject (Borg, 2018; Glickman, 1990; Ololube, 2005). Teacher competence encompasses not just teacher knowledge and skills but also their motivation, attitudes, and social behavior (Zlatić, Bjekić, Marinković, & Bojović, 2014). This variable thus also falls victim to the same problem of immeasurability. To appreciate the impact of in-service training, different studies have had to devise different metrics to measure variables. Yet, these variables rarely conform to such linear binaries.

In more quantifiable terms, in-service teacher training programs significantly advance teachers careers and aid unqualified teachers in their upgrading to qualified teacher status (Hersey & Blanchard, 1988; Junaid & Maka, 2015; Morrison, 1993; National Staff

Development Council, 2007). Upgrading teachers' education enables them to rectify the faults, superficiality, duplication, and irrelevance of life in schools in relation to real society (Mbiti, 1990). According to his findings, training programs must engage in the search for the underlying factors associated with complex issues in present society to enable development of a realistic system. Some of these factors may take the form of curriculum, school infrastructure, scholastic materials and funding among others. We hypothesize that if these factors were unified across academic institutions, it would enable transferability of teacher skills as well as development of an inclusive in-service teacher training program across training institutions. Yet, that is not always the case due to resource constraints and varied accessibility options available to different institutions and schools.

Generally, in-service teacher training gives teachers adequate groundwork on the needs of learners and provides them with a well-integrated general education, professional training and academic orientation (Kabadayi, 2016; Ololube, 2005). At its core, it aids teachers in obtaining a good grasp of the curriculum (Viirpalu & Mikser, 2014). In their study on performance of science teachers in secondary schools, Shakoor, Ghumman, and Mahmood (2013) found that by raising awareness of curricular changes to teachers, in-service teacher training led to better planning of content and delivery and improved the effectiveness of implementation of curricula. By increasing confidence and motivation of teachers, in-service teacher training improves their career prospects as well as their professional identity (Ju Youn, 2011). This concurs with findings by Yadav and Bhardwaj (2013) that confidence instilled by in-service teacher training program facilitates planning and preparation towards effective teaching. These skills lead to the building of a human resource pool that is dedicated and committed to teaching and positively influencing the overall delivery in the education system.

Data and Methods

In this analysis, we use primary data collected from a sample of 610 primary school teachers in the districts of Bushenyi, Rukungiri and Sheema. The study met the moral and ethical standards of research by observing maximum confidentiality of the respondents' identities. Anonymity was maintained by coding the questionnaires instead of putting individuals' names. Subject participation in the study was voluntary and verbal consent was sought from participants prior to involvement in the study. Participants were informed about what it meant to be involved in the study, what was expected of them, the objectives of the study and their right to decline participation.

The study applied a descriptive research design to obtain the required data. Questionnaires and key informant interviews were used in data collection. The research instruments were pilot tested to ensure their validity. Triangulation of the two methods with secondary sources also addressed validity concerns by enabling double-checking and countering inconsistencies in the tools.

Data analysis was done in three parts. First, a descriptive analysis was done to compare the characteristics of teachers across selected demographic and socioeconomic backgrounds including district, sex, qualification, number of years in service and age. Second, predictors of in-service teacher training were established using the binary logistic regression. Third, teachers' perception of the effect of in-service teacher training on professional development were investigated using a Likert scale of 11 criteria namely:

1. It enables teachers to acquire new skills and knowledge
2. It enables teachers to provide quality education to learners
3. It enables teachers to upgrade their academic qualification
4. It enables teachers to acquire promotion
5. It enables teachers to play a key role in the proper implementation of various education policies and programs
6. It broadens and deepens teachers' own knowledge, increases on their competence, reliability, and responsibility
7. In-service trained teachers become more professional by mastering the content
8. In-service trained teachers become more professional by getting motivated on the job
9. In-service trained teachers have a good command of their academic subjects and ably meet the needs of learners
10. Teachers who have had in-service teacher training are good performers in school
11. In-service trained head teachers are better administrators than those taught through other programs

'1' represents the lowest rank (strongly disagree) and '4' the highest rank (strongly agree). First, the Cronbach's alpha test was used to measure reliability and internal consistency of the scale. Results show an alpha of 0.773, which indicated that the scale had a good reliability and consistently measured the effect of in-service teacher training on professional development. The test further showed that removal of any variable reduces the Cronbach's alpha, which was an indicator that there was no redundancy and the variables were well defined. The median was then used to infer on each of the criteria. Further, the Mann-Whitney U test was used to understand whether the status of in-service teacher training of respondent had any significant effect on ranking of the different criteria at 5% level of significance. The Mann-Whitney U test was selected as the most appropriate test given that the data was ordinal and did not assume a normal distribution.

In conducting the study, the researchers encountered certain limitations including: lack of cooperation from some respondents who refused to answer the questions, some respondents asked to be paid to participate so their perceptions are missing here, and difficulty in recruiting experienced research assistants which increased the training and supervision costs.

Results and Discussion

Table 1 presents the distribution of respondents by background characteristics. Bushenyi district had the highest number of respondents with 36.1% while Sheema district had the least with 30.2%. Males constituted the largest proportion of respondents with 68.4% while females constituted only 31.6%. The results also show that majority of the respondents were Diploma holders (72.3%) followed by 16.4% Grade III holders and 11% graduates leaving only 0.3% with postgraduate qualifications. Results further show that majority of the respondents (84.4%) had ever attended in-service training leaving only 15.6% who had not. Finally, most of the respondents (27.5%) had 11-15 years of service followed by 21.8% with 16-20 years of service and only 12.5% with 1-5 years.

Table 1: Distribution of background characteristics of respondents

Characteristic	Frequency (n)	Percent (%)
District		
Bushenyi	220	36.1

Characteristic	Frequency (n)	Percent (%)
Rukungiri	184	30.2
Sheema	206	33.8
Sex		
Male	417	68.4
Female	193	31.6
Qualification		
Grade III	100	16.4
Diploma	441	72.3
Bachelor	67	11.0
PhD	2	0.3
In-service teacher training		
Yes	515	84.4
No	95	15.6
Number of years in service		
1-5 yrs.	76	12.5
6-10 yrs.	112	18.4
11-15 yrs	168	27.5
16-20 yrs.	133	21.8
20+ yrs.	121	19.8
Total	610	100.0

Table 2 presents the descriptive statistics for selected indicator variables. The findings show that there are significant differences in status of in-service training by number of years of service. The category of persons with 16-20 years of service had the largest proportion of teachers with in-service training (93.98%) followed by those with 20+ years of service with 85.95%. With regard to the category of qualification, diploma holders had the highest proportion of teachers with in-service training (87.53%) while postgraduate holders had none. The relationship between in-service teacher training and district was also examined, but there was no significant difference at 5% though the relationship was significant at 10%. The effect of sex on in-service teacher training was also found not to be significant.

Table 2: Descriptive statistics for selected indicator variables (N=2,364)

Variable/category	In-service teacher training status of teacher (%)			
	Yes	No	χ^2	p-value
District				
Bushenyi	81.82	18.18	5.671	0.059
Rukungiri	82.07	17.93		
Sheema	89.32	10.68		
Sex				
Male	85.37	14.63	0.896	0.344
Female	82.38	17.62		
Years of Service				
1-5yrs	73.68	26.32	17.236	0.002
6-10yrs	82.14	17.86		
11-15yrs	82.14	17.86		
16-20yrs	93.98	6.02		
20+yrs	85.95	14.05		
Qualification				
Grade III	74.00	26.00	22.616	0.000
Diploma	87.53	12.47		
Bachelors	82.09	17.91		
Postgraduate	0.00	100.00		

Table 3 shows the odds of a teacher having in-service training as opposed to not having the training. The findings show that the odds of a teacher with a diploma or a bachelors or post graduate degree having in-service teacher training were significantly higher than those of a Grade III teacher with respective p-values less than 0.05. Findings also show that teachers with 6-10 years of service were significantly less likely to have in-service teacher training than teachers with 1-5 years of service (OR=0.247, $p < 0.05$). The other categories showed no significant difference from teachers in the 1-5yrs category. Results further show that a unit increase in age is associated with a 4.6% reduction in the odds of a teacher having in-service teacher training ($p < 0.05$) meaning that younger people had a higher likelihood of having in-service training. Finally, results show that teachers in Rukungiri were significantly less likely to have in-service teacher training than teachers in Bushenyi with (OR=0.528, $p < 0.05$).

Table 3: Binary logistic regression predicting the odds of a teacher's in-service training outcomes (base category=no in-service training)

Variable	OR	S.E.	p-value
Sex			
Male†	1.000		
Female	1.465	0.260	0.142
Qualification			
Grade III†	1.000		
Diploma	32.727	1.114	0.002
Bachelors	75.555	1.126	0.000
Post Graduate	50.039	1.132	0.001
Age	0.954	0.024	0.046
Years of Service			
1-5yrs†	1.000		
6-10yrs	0.247	0.538	0.009
11-15yrs	0.504	0.475	0.150
16-20yrs	0.559	0.385	0.131
20+yrs	2.041	0.462	0.123
District			
Bushenyi†	1.000		
Rukungiri	0.528	0.295	0.030
Sheema	0.610	0.312	0.114

OR= Odds Ratio; S.E. = standard error; †= Reference Category

Perception of the Effect of In-Service Teacher Training on Professional Development

The results in Table 4 show that upgrading teachers' academic qualifications was the most considered criterion of effect of in-service teacher training with 70.89% of respondents expressing strong agreement that in-service teacher training enables teachers to upgrade their academic qualifications, followed by enabling teachers to acquire promotion (69.64%), enabling teachers acquire new skills and knowledge (63.17%), and broadening and deepening teachers' knowledge which increases their competence, reliability, and responsibility (46.50%). The other criteria, though considered strongly agreeable by less than 50% of respondents, were still considered agreeable with respective medians of 3. Specifically, results show that 56.57% of respondents expressed agreement that in-service teacher training enables teachers to become more professional by motivating them on the job followed by, in descending order: enabling teachers to have a good command of their academic subjects and ably meet the needs of learners (56.35%), enabling teachers to provide quality education to learners (55.37%), enabling teachers to become professional by mastering the content (53.13%), enabling teachers to play a key role in the proper implementation of various

education policies and programs (51.99%), improving the performance of teachers (49.5%) and enabling head teachers to become better administrators with 41.78%.

The finding that in-service teacher training had its largest influence on upgrading teachers' academic qualifications concurs with Mbiti (1990) who underlined the role played by in-service teacher training in upgrading teachers' education which in turn enables teachers rectify the faults, superficiality, duplication and irrelevance of classroom settings in relation to real life society. Further, findings show that in-service teacher training enables teachers to pursue promotion opportunities in support to Morrison's (1993) findings that teachers train to upgrade and qualify for higher positions. The findings that in-service teacher training motivates teachers on their job, and instigates a change in teachers' behavior, attitudes, and capabilities all focused on cultivating professional etiquette required to perform adequately resonate with conclusions arrived at by Hersey and Blanchard (1988), Ololube (2005) and Junaid and Maka (2015).

Table 4: Perception of effect of in-service teacher training on professional development

Effect of in-service training on professional development of teachers	Strongly disagree	Disagree	Agree	Strongly agree	Median
i. It enables teachers acquire new skills and knowledge	0.67	2.00	34.17	63.17	4
ii. It enables teachers provide quality education to learners	2.68	6.54	55.37	35.40	3
iii. It enables teachers upgrade their academic qualification	0.66	3.29	25.16	70.89	4
iv. It enables teachers to acquire promotion	0.99	4.95	24.42	69.64	4
v. It enables teachers to play a key role in the proper implementation of various education policies and programs	1.49	9.93	51.99	36.59	3
vi. It broadens and deepens teachers' own knowledge, increases on their competence, reliability and responsibility	1.83	6.67	45.00	46.50	3
vii. In-service trained teachers become more professional by mastering the content	5.26	13.32	53.13	28.29	3
viii. In-service trained teachers become more professional by getting motivated on the job	7.48	20.44	56.57	15.51	3
ix. In-service trained teachers have a good command of their academic subjects and ably meet the needs of learners	1.84	13.04	56.35	28.76	3
x. Teachers who have had in-service teacher training are good performers in school	6.11	21.12	49.50	23.27	3
xi. In-service trained head teachers are better administrators than those taught through other programs	7.72	23.83	41.78	26.68	3

Findings from the interviews show that in-service trained teachers are better teachers as far as provision of education is concerned. A head teacher was quick to note that they are better and more sociable (Field Interview No. 2) while another said that in-service trained teachers are serious at their work, especially if they are in positions of responsibility (Field Interview No. 3). *“Those who are serious at work provide quality education and are good administrators,”* observed one district education officer (Field Interview No. 9). Another education officer noted that when in-service trained teachers are promoted in administrative positions, they are motivated to even improve their teaching abilities and to provide a good example for other teachers as well as learners (Field Interview No. 7). This in turn increases their level of professionalism (Field Interview No. 5). Professionalism is also measured in terms of qualification for promotion. One inspector of schools asserted that in-service teacher training provides opportunity for teachers to further their education, which is key in acquiring promotion (Field Interview No. 6). Another school leader noted that in fact, the ability of a teacher to use different teaching techniques gives them a competitive edge when applying for promotion (Field Interview No. 2). An education officer confirmed this saying that *“when looking for teachers to hold positions of responsibility, those with better qualifications take first priority”* (Field Interview No. 9).

With regard to teaching technique, one inspector of schools observed that in-service trained teachers teach better because they teach their subjects of specialization (Field Interview No. 6). Since teachers individually select these subjects during the in-service teacher training, it shows that they take joy in both learning and teaching them, which facilitates a better teaching-learning environment (Field Interview No. 8). One school head, however, asserted that in-service trained teachers only become better teachers if they strictly apply the gained knowledge and skills (Field Interview No. 1). With regard to learners' experiences, a head teacher observed that in his school, pupils had better relationships with in-service trained teachers and were more sociable during their classes (Field Interview No. 10). *“They (in-service trained teachers) encourage pupils to build teams and you find that their pupils easily make groups to enable their academic work,”* said another head teacher of the pupils in classes taught by in-service trained teachers (Field Interview No. 12).

A head teacher in Sheema and another in Bushenyi noted that in-service trained teachers who are talented at co-curricular activities are always eager to assist pupils in various games (Field Interview No. 11 and Field Interview No. 13). In-service trained teachers also give their pupils free time to socialize and make groups that help them play different games depending on the likes of the group (Field Interview No. 18). Some head teachers in Sheema and Rukungiri reported that in-service trained teachers not only help with games but also with other skills such as music and scouting (Field Interview No. 16), handiwork like making carpets, baskets, and table cloths (Field Interview No. 2) and other outside class activities like gardening and compound cleaning (Field Interview No. 17).

Though the effect of in-service teacher training on professional development is colored with approval, our study also found, through key informant interviews, that not all in-service trained teachers provide good education and their professional development is suspect as discussed in the subsequent section.

Most head teachers expressed disappointment in the professional discipline of in-service trained teachers noting their inability to yield to leadership. One head teacher noted that when teachers upgrade to the same level of qualification, they become undisciplined (Field Interview No. 1). This train of thought was further supported by two officials in Rukungiri

who both observed lack of discipline cases among in-service trained teachers, mostly in cases where the teachers became more or equally as qualified as their head teachers (Field Interview No. 5 and Field Interview No. 8). Some such cases, as observed by one head teacher, involve in-service trained teachers refusing to teach infant classes which they initially taught before the training (Field Interview No. 2). This was attributed to the introduction of thematic curriculum, which emphasizes teaching infants in vernacular. *“However, in-service trained teachers often show resentment towards this method with a preference to use the English language in teaching,”* he added. Another head teacher contributed to the arguments saying that in some instances, an unhealthy competition and in others disrespect for authority have been instigated between teachers and their supervisors (Field Interview No. 6).

Another school head teacher observed that most teachers would, after the training, demand immediate promotion (Field Interview No. 4) and salary increment and when not granted, they *“simply become stubborn and undisciplined”* (Field Interview No. 3). An official in one education department said that after getting better qualifications, teachers feel that they should be promoted on the job even when vacant positions are not available at the moment (Field Interview No. 7). One head teacher expressed similar sentiments saying that in-service trained teachers develop a superiority complex and often overlook other teachers especially those without training (Field Interview No. 2). This resentment was often aggravated when trained and untrained teachers still earn the same salary. A district official expressed that after in-service teacher training, most teachers start a pursuit of transition from classroom work to school administration (Field Interview No. 18). Accordingly, this stifles the fulfillment of professional ethics such as preparation of schemes of work and lesson plans, which renders in-service trained teachers inefficient. Another officer in Bushenyi seemed to agree saying that in-service trained teachers, after graduation, tend to abandon actual teaching in preference for administrative positions (Field Interview No. 16).

Some key informants expressed disappointment in the education system stating that it seems in-service teacher training is not a priority for the education ministry and teachers have to take individual initiatives to pursue the course. One official pointed out that teachers were not given time off to participate in the training and often found themselves in a fix whereby they had to teach and study all at the same time (Field Interview No. 14). He explained that the two programs were done concurrently which left teachers no time to complete the syllabus. One head teacher added that in-service trained teachers at times used classroom time to attend to their studies, hold discussions, answer assignments and so on, leaving them little time to stick to actual teaching (Field Interview No. 15). Another head teacher pointed out that when he was attending the training some years prior to the study, he always found himself stuck with duties to perform such as preparing schemes of work, eight lesson plans per day and general school administration in addition to the training (Field Interview No. 10). According to him, the pressure to perform both responsibilities was overpowering, he always found himself underperforming at one of them.

Some respondents questioned the ministry of education on the way in-service training is organized. One official noted that teachers are, during the training, exposed to many innovations. However, when they go back to their schools, they do not practice what they have been taught because it does not blend into the stipulated school syllabus. This interface in the application of acquired knowledge stifles the morale of trained teachers who cannot realize the impact of their training (Field Interview No. 17). A head teacher in the same district contributed to the discussion saying that the ministry imposes many changes in the

syllabus which teachers must implement yet they are not sensitized on proper application procedures (Field Interview No. 11). Another official in the education department added that in-service teacher training is designed on a syllabus that is not consistent with the one available in schools, yet nothing has been done to enhance coherence (Field Interview No. 13). Further, schools are not equipped with sufficient resources in the form of scholastic materials, incentives and a favorable learning environment to accommodate in-service graduates' skills.

These sentiments all point to a weakness within Uganda's education system in failing to harmonize its policies to benefit both teachers and learners. As such, the majority of teachers have pursued in-service teacher training not to improve their teaching abilities and learners' attainment of education but rather for promotion purposes and to qualify for salary increment.

Inferential Analysis

The Mann-Whitney U test was used to discover the impact of respondent's status of in-service training on their perception of effect of in-service teacher training on professional development. We tested the null that in-service teacher training status of respondent had no significant effect on ranking of criteria for effect of in-service teacher training on professional development.

Table 4: Perception of effect of in-service teacher training on professional development by respondent's status of training

	In-service teacher training enables teachers acquire new skills and knowledge	In-service teacher training enables teachers upgrade their academic qualification
Mann-Whitney U	20501	21231
Wilcoxon W	24687	25791
Z	-2.074	-2.517
p-value	0.038	0.012

Findings show that teachers without in-service teacher training ranked "In-service teacher training enables teachers to acquire new skills and knowledge" and "In-service teacher training enables teachers to upgrade their academic qualification" less favorably than in-service trained teachers with p-values less than 0.05. Other criteria did not show significant difference.

Conclusion

The relevance of in-service teacher training on professional development of teachers cannot be overemphasized. Our study shows that in-service teacher training has its largest influence on upgrading teachers' academic qualifications and improving their attitude towards their job. In-service teacher training also plays a big role in equipping, broadening and deepening teachers' knowledge and skills, which in turn fosters an increase in teachers' competence, reliability, and responsibility. Further, the training equips head teachers and teachers alike with the administrative skills necessary to enable proper implementation of various education policies and programs. Generally, in-service trained teachers are more professionally grounded than untrained teachers thus in-service teacher training aids the building of a

qualified teaching workforce, whose effect on the teaching-learning environment instigates a reform in the education system.

Whereas in-service teacher training has been hailed for stimulating professional development, our study finds that not all in-service trained teachers provide good education. This is due to resource constraints such as insufficient instructional materials and teachers' accommodation and personal behavior challenges such as stubbornness, disobedience to leadership and alcoholism among others. Beyond in-service training, a teacher's performance is a reflection, to a larger extent, of the context within which he or she is working. To this end, the study recommends that learning environments within education institutions be made more conducive for the teaching-learning process.

Our findings further provide evidence that in-service teacher training has actually not realized its core objective on the ultimate beneficiary, the learner and has rather been pursued only as a means towards promotion and consequent salary increment. With this in mind, we recommend proper sensitization of teachers on the importance of the training and its effect on learners' attainment of education. The training approach must also be reviewed and revised to include a pre-training needs analysis, and training and post-training evaluation to assess the impact of the training in teaching-learning processes.

References

- Alkuş, S., & Olgan, R. (2014). Pre-service and in-service preschool teachers' views regarding creativity in early childhood education. *Early Child Development and Care*, 184(12), 1902–1919. <https://doi.org/10.1080/03004430.2014.893236>
- Amadi, N. M. (2013). In-service training and professional development of teachers in Nigeria: through open and distance education. *Bulgarian Comparative Education Society*, Paper presented at the Annual Meeting of the Bulgarian Comparative Education Society (11th, Plovdiv, Bulgaria, May 14–17, 2013). Retrieved from <http://files.eric.ed.gov/fulltext/ED567172.pdf>
- Bayar, A. (2014). The components of effective professional development activities in terms of teachers' perspective. *International Online Journal of Educational Sciences*, 6(2), 319–327. <https://doi.org/10.15345/iojes.2014.02.006>
- Borg, S. (2018). Evaluating the impact of professional development. *RELC Journal*, 49(2), 195–216. <https://doi.org/10.1177/0033688218784371>
- Boyle, B., While, D., & Boyle, T. (2004). A longitudinal study of teacher change: What makes professional development effective? *The Curriculum Journal*, 15(1), 45–68. <https://doi.org/10.1080/1026716032000189471>
- Bramley, P. (1991). *Evaluating training effectiveness: translating theory into practice*. New York, NY: McGraw-Hill Book Company.
- Cavanagh, S. (2013). Rapid rise seen in use of digital tools for PD. *Education Week*, 6(3), 10.
- Cooper, J. D. (2004). *Professional development: an effective research-based model*. Houghton-Mifflin Harcourt: STEM Education Research.
- Council of the European Union. (2009). Council conclusions on a strategic framework for European cooperation in education and training ('ET 2020'). *Official Journal of the European Union*. Retrieved from http://ec.europa.eu/education/lifelong-learning-policy/framework_en.htm
- Dunst, C. J., Bruder, M. B., & Hamby, D. W. (2015). Metasynthesis of in-service professional development research: Features associated with positive educator and student outcomes. *Educational Research and Reviews*, 10(12), 1731–1744. <https://doi.org/10.5897/ERR2015.2306>
- Earley, P., & Porritt, V. (2014). Evaluating the impact of professional development: The need for a student-focused approach. *Professional Development in Education*, 40(1), 112–129. <https://doi.org/10.1080/19415257.2013.798741>
- Eilor, J. (2003). *Impact of the Primary Education Reform Program (PERP) on the quality of basic education in Uganda* (African experiences - country case studies). Association for the Development of Education in Africa, ADEA.
- European Union. (2013). *Improving the quality of in-service teacher training system: analysis of the existing ETTA INSETT system and assessment of the needs for in-service training of teachers* (No. EuropeAid/130730/D/SER/HR). European Union.
- Ficarra, L., & Quinn, K. (2014). Teachers' facility with evidence-based classroom management research with science teachers. *Journal of Teacher Education for Sustainability*, 16(2), 71–87. <https://doi.org/10.2478/jtes-2014-0012>

- Glickman, C. D. (1990). *Supervision of instruction: a development approach*. (2nd ed.). London: Prentice Hall, Inc.
- Guskey, T. R. (2014). Planning professional learning. *Educational, School, and Counseling Psychology Faculty Publications*, 15. Retrieved from https://uknowledge.uky.edu/edp_facpub/15
- Hersey, W., & Blanchard, K. H. (1988). *Management of organizational behavior*. (5th ed.). NJ: Prentice Hall, Inc.
- Ju Youn, S. (2011). *The impact of in-service teacher training: a case study of teachers' classroom practice and perception change*. (Unpublished dissertation). University of Warwick, Warwick.
- Junaid, I. M., & Maka, F. (2015). *In-service teacher education in sub-Saharan Africa: a synthesis report*. Commonwealth Secretariat.
- Kabadayi, A. (2016). A suggested in-service training model based on Turkish preschool teachers' conceptions for sustainable development. *Journal of Teacher Education for Sustainability*, 18(1), 5–15. <https://doi.org/10.1515/jtes-2016-0001>
- Lehiste, P. (2015). The impact of a professional development program on in-service teachers' TPACK: a study from Estonia. *Problems of Education in the 21st Century*, 66(18).
- Mahmood, K. (1999). *Effectiveness of in-service training imparted through teacher training project*. Allama Iqbal Open University, Islamabad.
- Mbiti, M. D. (1990). *An introduction to Education*. (2nd ed.). Nairobi, Kenya: Oxford University Press
- Ministry of Education and Sports. (2010). *Training Manual on Pedagogical Leadership in Primary School: Teacher, Instructor. Education and Training Development*. Republic of Uganda.
- Morales, M. P. E. (2016). Participation Action Research (PAR) cum Action Research (AR) in teacher professional development: a literature review. *International Journal of Research in Education and Science*, 2(1), 156–165.
- Morrison, T. (1993). *Staff supervision in social care*. (1st ed.). Harlow: Longman.
- National Staff Development Council. (2007). *Professional development*. Retrieved from <http://www.NSDC.org/connect/about/index.cfm>.
- Newton, M. (2013). Styles and strategies of evaluating INSET. In R. Burgess, J. Connor, S. Galloway, M. Morrison, & M. Newton (Eds.). *Implementing in-service education and training* (2nd ed.). New York: Routledge.
- Nishimura, T. (2014). Effective professional development of teachers: a guide to actualizing inclusive schooling. *International Journal of Whole Schooling*, 10(1), 19–42.
- O'Dwyer, J. B., & Atli, H. H. (2015). A study of in-service teacher educator roles, with implications for a curriculum for their professional development. *European Journal of Teacher Education*, 38(1), 4–20. <https://doi.org/10.1080/02619768.2014.902438>
- Okiror, J. J., Hayward, G., & Winterbottom, M. (2017). Towards in-service training needs of secondary school agriculture teachers in a paradigm shift to outcome-based education in Uganda. *Journal of Agricultural Education and Extension*, 23(5), 415–426. <https://doi.org/10.1080/1389224X.2017.1338593>

- Ololube, N. P. (2005). *School effectiveness and quality improvement; Quality teaching in Nigerian schools*. New York: Harcourt, Brace.
- Omar, C. M. Z. C. (2014). The need for in-service training for teachers and its effectiveness in school. *International Educative Research Foundation and Publisher*, 2(11), 1–9.
- Osamwonyi, E. F. (2016). In-service education of teachers: Overview, problems and the way forward. *Journal of Education and Practice*, 7(26), 83–87.
- Sabri, S. K. (1997). In-service teacher training programmes: the case of Palestine, *Journal of In-service Education*, 23(1), 113–118. <https://doi.org/10.1080/13674589700200006>
- Sabzian, F., & Gilakjani, A. P. (2013). Teachers' attitudes about computer technology training, professional development, integration, experience, anxiety, and literacy in English language teaching and learning. *International Journal of Applied Science and Technology*, 3(1), 67–75.
- Shakoor, A., Ghumman, S. M., & Mahmood, T. (2013). Effect of in-service training on the working capacity and performance of science teachers at secondary level. *Journal of Educational and Social Research*, 3(3), 337–342. <https://doi.org/10.5901/jesr.2013.v4n3p337>
- Sheth, S. (2004). Knowledge for teacher development in India: The importance of local knowledge for in-service education. *International Journal of Education Development*, 24, 39–52. <https://doi.org/10.1016/j.ijedudev.2003.09.003>
- Sokal, L., & Sharma, U. (2014). Canadian in-service teachers' concerns, efficacy, and attitudes about inclusive teaching. *Exceptionality Education International*, 23(1), 59–71.
- Sparks, D., & Richardson, J. (1998). *What is staff development anyway?: Everything you need to know about professional learning*. Oxford, OH: National Staff Development Council.
- Viirpalu, P., & Mikser, E. K. R. (2014). Investigating Estonian teachers' expectations for the general education curriculum. *Journal of Teacher Education for Sustainability*, 16(2), 54–70. <https://doi.org/10.2478/jtes-2014-0011>
- Villa, R., Thousand, J., & Nevin, A. (2013). *A guide to co-teaching: New lessons and strategies to facilitate student learning* (3rd ed.). Thousand Oaks, CA: Corwin Press.
- Vu, P., Cao, V., Vu, L., & Cepero, J. (2014). Factors driving learner success in online professional development. *The International Review of Research in Open and Distance Learning*, 15(3), 120–139. <https://doi.org/10.19173/irrodl.v15i3.1714>
- Wesch, M. (2009). From knowledgeable to knowledge-able: Learning in new media environments. Retrieved from <http://www.academiccommons.org/2014/09/09/from-knowledgable-to-knowledge-able-learning-in-new-media-environments/>
- Yadav, B., & Bhardwaj, P. (2013). Impact of in-service teacher education programmes on class room transactions, *Educationia Confab*, 2(6), 8–16.
- Zaman, T. (2004). *Study guide, teacher education in Pakistan* (p. 6). Islamabad: Allama Iqbal Open University.
- Zaslow, M. (2014). General features of effective professional development. In T. Woods, H. Ginsburg, & M. Hyson (Eds.). *Preparing early childhood educators to teach math* (pp. 97–115). Baltimore: Brookes Publishing.

Zlatic, L., Bjekic, D., Marinkovic, S., & Bojovic, M. (2014). Development of teacher communication competence. *Procedia – Social and Behavioral Sciences*, 116, 606–610. <https://doi.org/10.1016/j.sbspro.2014.01.265>

Corresponding author: Faith Atuhumuze
Contact email: atuhumuzefaith@gmail.com