

*Full Length Research Paper*

# **Effect and snags of provision of in-service education and training for teachers in basic schools for the deaf**

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**Regular and effective provision of in-service training for teachers is a necessary practice for the educational development of any country. The provision of effective in-service training and education for special teachers is however bedeviled with many challenges. To appraise the effect and problems of in-service training in Ghana, a survey involving 90 teachers from three schools for the deaf namely: Savelugu, Wa and Gbeogo Schools for the Deaf were sampled in this study. A set of 94 questionnaire and 4 exclusive separate interviews sessions were used to collect data for the study. The data was tallied into frequency tables and percentage distribution tables were generated from MS Excel for further interpretation and discussion. The study revealed that in-service training programmes are few and highly ineffective. There is a general delink between what the special teacher needs and what is provided leading to the little use of knowledge and skills acquired from the training. Lack of material resources, teaching aids, modern equipment and funding opportunities have served as a huge blockage to the provision of effective in-service training and education. In-service training can only be made effective if it is preceded by needs assessment with funding made available for the training of teachers of special schools.**

**Key words:** In-service, education, effect, problems, training, education, deaf, special teacher.

## **INTRODUCTION**

Teachers are generally the nucleus of educational development. The impact of teachers is felt at all times by their ability to change with the changing trends in education through in-service training. Thus, the effect of in-service education and training is intended to fill the gap of professional inadequacies of serving teachers (Osamwonyi, 2016) although the collective goal of in-service education and training is to prepare students for the world beyond school. However, the provision of in-service education and training comes with myriad of challenges that require urgent arrest. The Ghana government's educational reform review report noted the

problems confronting teacher education in Ghana. One of the core problems highlighted in the report distinguished inadequacy of professional teachers across all levels of the educational system including special schools (MOE, 2000). Recognising this fact, the White Paper Report of the Reform Review Committee (MOEYS, 2004) addressed the professional development of teachers as part of its terms of reference. The proposed actions included the following:

i) Modular and competency-based training courses and distance education courses for non-professional teachers

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to enable them qualify as professional teachers.

ii) Continuous teacher development was to be undertaken to upgrade and update the competences and skills of serving teachers to enable them offer quality teaching and learning in Ghanaian schools.

iii) Remedial programmes were to be provided for teachers without minimum requirement to enter teacher training colleges.

iv) Special attention were to be given to the training of teachers for special education.

Unfortunately, the problems that affect the provision of the key actions proposed by the Reform Review Committee, to date, have not been given the needed attention deserved. The purpose of this research is in consequence designed to appraise the effect of in-service training programmes on teachers for the school of the deaf in meeting the needs of hearing impaired students. The study also highlights the problems militating against the provision of effective in-service training for regular development of teachers of the schools for the deaf in Ghana. These objectives were achieved by the review of some very useful concepts and the administration of carefully designed questionnaire and well executed interview sessions.

### **What is in-service training?**

In-service training and education refers more specifically to identifiable learning activities in which serving teachers participate. This could be: regular courses, conferences, workshops, seminars, correspondence courses, or exhibitions (Osamwonyi, 2016). Serving teachers need to be involved in a process of learning and reflection to improve their professional practice (Aitken, 2000). Serving teachers also need to be familiar with the technology, teaching and instructional design skills and how to exploit collaboration tools that will enable them help their pupils engage in constructivist thinking, experimentation, problem solving and learning linked to real life situations (Kheng et al., 2000).

### **The different approaches to in-service training**

In-service education fills the missing links created by the changing society between pre-service education and teacher's effectiveness in the world of work. For instance, in a study conducted by Dawson (2005) dubbed 'lesson study', the approach to teacher development is called 'Knowledgeable other'. Lesson study is a form of teacher professional development that is based on teacher collaboration and teacher community (Shúilleabháin, 2015). It is an investigation of teachers into their own practices through planning, conducting, observing, and reflecting on research lessons (Conway and Sloane, 2005; Fernández, 2001; Corcoran, 2011; Fernández

and Robinson, 2006; Murata et al., 2012; Murata and Takahashi, 2002; Takahashi and Yoshida, 2004). Knowledgeable others are resource persons (Fernandez, 2001) who provide information about the subject matter content, new ideas, or reforms. Knowledgeable others are often invited to speak as guest lecturers as part of the school staff professional development and thus they become abreast with what factors are emerging in a particular cycle of lessons.

Dowson's study examined ways to improve the teaching of English as a second language (ESL) to deaf Cantonese-speaking students in Hong Kong and also examined the use of "Research Lesson Approach" as a form of professional development for teachers of the deaf. The research design instruments were: videos, interviews, and participant observation to collect data. Discussion around videoed lessons was particularly significant, as teachers had opportunities to comment on their own, and the observed actions of others with a view to making lessons more effective. The general connotation and conclusion drawn from the discussions was that the Research Lesson approach was a potent form of In-service Teacher Education and was effective in the teaching of English as a second language to deaf students.

In another study by Peter and Waterman (2006) to examine whether in-service training makes any difference, a modified static-group comparison design was used. One group of staff was the experimental group, namely those who attended and who received the information given at the evaluation workshop. A second group was identified by a stratified random selection process from those agents who did not attend the evaluation workshop. Stratified random selection was used to identify agents similar in assignments, program area, and tenure to those agents attending. Posttests were given to both groups. Using an independent t-test to compare groups for significant difference, results indicated that those agents who attended the evaluation workshop scored significantly higher on knowledge than did the control group. Peter and Waterman (2006), in their conclusion, state that in at least the cognitive (knowledge) area a significant change had taken place.

Joyce (2005) suggested in studies conducted on teachers who were involved in a workshop that as little as five percent of the participants in a structured teacher in-service activity incorporates or transfers knowledge gained from an in-service workshop or activity to their repertoire. Even with proper feedback, only 50% will try it on.

## **MATERIALS AND METHODS**

### **Target population**

All two hundred and ninety-three (293) teachers from all thirteen Government Junior High Schools for the deaf in Ghana constituted the target population of the study. A target population is the

group to which a researcher would like the results of a study to be generalized (Asiamah et al., 2017).

### Sample and sampling technique

Ninety teachers from 13 Government Junior High Schools of the deaf in addition to four administrators were simple randomly and purposively sampled respectively for the study. With this simple random method of sampling, each unit included in the sample will have certain pre-assigned chance of inclusion in the sample. According to Ajay and Micah (2014), this sampling technique provides the better estimate of parameters in the studies in comparison to purposive sampling. This technique provided the schools and individual respondents with equal chance of being chosen and reduced bias in the selection process.

Purposive sampling provides biased estimate because sampling units are selected on purpose. This technique can be used only for some specific purposes (Ajay and Micah, 2014). Patton (2002) noted that obtaining an unbiased sample affects the quality of the research generalizations. Over the past two decades, most research (Polit and Hungler, 2013; Brink, 2006) in defining a sample emphasized it to be a subset of a population or a fraction of a whole selected to participate in a study. Sampling on the other hand is the process of selecting a portion of the population to represent the entire population (Nesbary, 2000; Polit and Hungler, 2013; LoBiondo-Wood and Haber, 2014).

### Data collection tools

Questionnaires and interview guides were used to collect data for the study. Questionnaire items were in three sections: I, II and III. Section I consisted of four items that gathered information concerning respondents' background. Section II investigated the effects of in-service activities on teachers. Section III determined the difficulties in organising in-service programmes. The questionnaire was crafted into Likert scale of five responses categorised as: Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree.

Interview guide was also designed to engage the rest of the respondents in some sort of dialogue so that they would be able to express themselves beyond Yes or No responses. The interviews were used as a means of triangulation. Schedules for the interview were devised comprising semi-structured items. This approach allowed interesting responses to be followed up immediately. According to Lynas (2001), in semi-structured interview, only broad areas are identified and probed further to clear up misunderstood areas. The interview sessions were recorded using a Philips Dynamax2 hi-fi recorder. Julie (2015) agreed that descriptive survey research lends itself to questionnaire and interview to determine the opinion, attitude, preferences and perception of persons of interest to the study.

### Reliability and validity

A pilot study was carried out to ensure reliability and validity of the data collection instruments. The data collection instruments were pilot tested on 10% of sample size to discover possible weakness, inadequacies, ambiguities and problems in the instrument, at the Sekondi School for the Deaf in the Western Region of Ghana. Convenience method was adopted for sampling the units for the pilot study. The data collection instruments and the sample size were considered appropriate since they had the same characteristics with study schools and sample. Reliability refers to the "accuracy (consistency and stability) of measurement by a test (Isaac and Michael, 1995). This is determined by retesting an

individual with the same test." Validity indicates "the degree to which the test is capable of achieving certain aims" (Isaac and Michael, 1995, p. 32). In other words, does the test measure what it intends to measure? Both reliability and validity are vital to an effective research design.

### Data collection procedure

Interviews were conducted on one-on-one basis for three District training officers and one personnel of the Special Education Directorate at the education head. Interviews were recorded using a Philips Dynamax2 hi-fi recorder. Each session lasted between 20 to 30 min. The consent of the interviewees was sought and the purpose of the research explained to them. Permission was also sought regarding the use of a recorder to record the interviews. Ayala and Elder (2013) stated that tape recorders capture long verbatim quotations and allow the researcher to engage in lengthy informal and semi structured interview.

Ninety-six copies of questionnaires were administered and ninety-four retrieved. The return rate was ninety-seven (97%). A period of one week was allowed for respondents to answer the questionnaire. Robson (2002) cautioned that some respondents do not treat questionnaire seriously. To ensure that this did not happen, copies of questionnaire were administered and retrieved by the researcher within one week.

### Research design

A descriptive survey design was used for this study. There is a consensus among social scientists. Fraenkel and Wallen, (2006) that descriptive surveys provide information on the current status of a phenomenon, and determines the nature of a situation as it exists at the time of a study.

### Gaining access

While the questionnaire were introduced to and discussed with ninety respondents, letters were sent out to all four respondents to introduce; the researcher, the mission of the research, interview dates, time and venues for the interview. This criterion which gave respondents ample time to plan and factor into their schedules the requirements of the content of the letter was in accordance with Creswell (2005) view.

### Statistical analysis

Data on the questionnaire were tallied into frequency tables and the percentages calculated using Microsoft Office Excel. The tables were then used to generate information for the discussion of the problem.

## RESEARCH FINDINGS

The Section I part of the questionnaire which captured the background information of the respondents is shown in Table 1. Out of the ninety-four respondents, there were 43 male and fifty-one (51) female. About 78% of the respondents were of middle age, that is, between 31 to 50 years; only about 6% were above 50 years but not retired. About 15% of the respondents were younger than 31 years. Although majority (46.9%) of the respondents

**Table 1.** Analysis of respondents' background information.

<b>Respondents demographic characteristics</b>	<b>F</b>	<b>%</b>
<b>Gender</b>		
Male	43	45.7
Female	51	54.3
Total	94	100
<b>Age analysis</b>		
20-30	14	14.9
31-40	54	57.4
41-50	20	21.3
51-60	6	6.4
Total	94	100
<b>Qualification</b>		
Degree	25	26.6
Diploma	8	8.5
Cert A	17	18.0
Others	44	46.9
Total	94	100
<b>Experience (years)</b>		
1-5	51	54.3
6-10	33	35.1
11-15	8	8.5
16-20	2	2.1
Total	94	100

F denotes frequency of response; % is response percentage.

Cert 'A' was a Teachers' Certificate received after 3-years of successful post-secondary teacher training in Ghana before 2005.

**Table 2.** Effects of in-service training programmes on teachers.

<b>Statement</b>	<b>Agree</b>		<b>Neutral</b>		<b>Disagree</b>		<b>Total</b>	
	<b>F</b>	<b>%</b>	<b>F</b>	<b>%</b>	<b>F</b>	<b>%</b>	<b>N</b>	<b>%</b>
I have benefited from INSET/workshops	34	36.2	6	6.4	54	57.5	94	100
I have applied ideas/methods gained at workshop in my teaching	24	25.5	22	23.4	48	51.1	94	100
I still have difficulties teaching the deaf in spite of in-service training	72	76.6	8	8.5	14	14.9	94	100

F denotes frequency of response; % is response percentage; N is the total number of respondents.

were non-professional teachers, about 98% had not taught beyond 15 years, and 2% who have taught for close to 20 years were largely Certificate 'A' holders. About 35% of the respondents had qualifications above Certificate 'A', however none of them had a master's degree.

#### **Effects of in-service training on teachers of the deaf**

Table 2 illustrates responses of teachers as regards the effect of in-service education and training. The objective

was to ascertain how in-service education has affected teachers in meeting the teaching and learning needs of the hearing impaired students. While about 58% did not participate and have not benefited from any in-service training programmes/workshop, 36.2% of the respondents have had some in-service training and have had benefits. About 6% of respondents could not tell whether they have ever attended or benefited from an in-service training.

The number of respondents (25.5%) who have had in-service training after pre-service education benefited and used or applied knowledge, ideas and methods gained

**Table 3.** Difficulties in organising in-service training.

Statement	Agree		Neutral		Disagree		Total	
	F	%	F	%	F	%	N	%
I encountered difficulties while attending INSET/workshops	19	20.2	46	48.9	29	30.8	94	100
I was given resource materials at the workshop	10	10.7	17	18.1	67	71.3	94	100
The resources were sufficient	11	11.7	16	17	67	71.3	94	100
The resource person(s) at INSET/workshops were competent	23	24.5	38	40.4	33	35.1	94	100

F denotes frequency of response; % is response percentage; N is the total number of respondents.

from the in-service training/workshop. About 51.1% of the respondents disagreed with the statement implying that they have neither attended nor benefited from in-service training after pre-service education; about 23.4% were not certain. Nearly three-quarter or 75% of respondents have not had any in-service education or are uncertain and therefore have not had any benefits as serving teachers.

About 76.6% of the respondents said “*I still have difficulties teaching the deaf in spite of in-service training.*” While about 14.9% of the respondents did not face any difficulties applying skills and knowledge learnt from in-service training, 8.5% were not sure.

### Problems that militate against effective and regular provision of staff development for teachers of the deaf in Ghana

Table 3 presents responses of teachers regarding difficulties in organizing in-service training. While about 48.9% of the respondents did not know whether they ever encountered any difficulty attending an in-service training, there were about 10 more people who disagreed (30.8%) that they encountered difficulties than those who did agree (20.2%).

About 71% of the respondents have never received any resources or teaching and learning materials after attending an in-service training or a capacity building workshop. Only 10.7% have received resource materials from in-service education packages after pre-service training. About 18% could not tell whether they have ever received resource materials from an in-service training or not.

About 71% who disagreed they were given resources during any in-service training also said resources were not sufficient. Seventeen per cent (17%) of the respondents could not immediately agree or disagree that resources have been sufficient for facilitation, teaching and learning. One more person who agreed that resources were sufficient (11.7%) also agreed they received resource materials (10.7%) during in-service training and education.

On whether resource persons during capacity building workshops or in-service training and education showed

competence, about 35% of the respondents did not believe they showed competence during facilitation. Forty per cent (40%) who failed to comment on this were either undecided or have not participated in any in-service training. Only about 24% agreed that resource persons showed competence.

### DISCUSSION

The majority of the respondents (Table 1) were female (54.3%), between the ages of 31-40 (57.4%), non-professional (46.9%) and had little teaching experience, that is, for only five years or less (54.3%). The Ghana Governments educational reform review report (MOE, 2000) noted inadequate number of professional teachers across all levels of education including special schools and this is not different from the current trend. Whereas 46.9% of respondents are below Certificate ‘A’ and can be confirmed non-professional, only about 27% (Cert ‘A’ and Diploma) can be confirmed as professional teachers. The rest of the 26.6% who are graduate teachers can either be graduate professional or graduate non-professional.

In-service training of special teachers by the central Government is not common. It takes the bizarre inherent motivation of the individual special teacher to initiate such a triumphant move to build his or her own capacity to support the hearing impaired student. In-service training of special teachers is largely centralized.

*“There are **difficulties** in organizing in-service training, and so we cannot design activities to suit special teachers; everything has been centralized”.* Comment of a Director of Education.

The lack of or the inadequate continuous development of the special teacher has not motivated many in the teaching field. About 75% have not benefited from in-service education after pre-service training (Table 1). Thus, teaching has become a stepping stone for most people whose initial job acceptance is teaching. Special teachers have not stayed on the job for more than 20 years as teaching experience dwindled from 54.3% from first 5 years of teaching to 35.1% at 10 years of teaching

to 8.5% at 15 years of teaching and 2.1% at 20 years of teaching (Table 1). That is, the number of teachers ( $t$ ) is inversely proportional to the number of years served ( $y$ );

$$t = k \left( \frac{1}{y} \right); \text{ where } k \text{ is constant.}$$

The effectiveness of the special teacher largely lies in the kind of training received from the right caliber of facilitators or trainers. About 35.1% of the few who received in-service training believed resource persons or facilitators did not show competence in their delivery during training sessions. UBS (2018) notes that staffs are entitled to an effective and supportive environment, consistent quality training, an effective learning environment and good quality advice.

He explained further that working within the confines of a national educational system, it is easy to overlook the extent to which the meaning of special education has become diverse. Lack of opportunities for teachers in special schools was making it difficult for the teachers to develop their skills. Such has often been the case with externally designed in-service training activities. This was indicated in the findings of an evaluation of in-service training activities done by the (MOE, 2000). The report concluded that centrally designed in-service programmes were not effective as they are externally designed without the involvement of teachers. They are usually presented in an instructive manner which does not help teachers deal with the actual classroom situations. Similarly, when schools in New Zealand were asked to indicate how in-service can be effective (Educational Review Report, 2002), many schools said that the most effective forms of training were internally rather than externally provided. These schools felt that the greatest benefits were where training needs were identified by teachers themselves and a large number of teachers were involved in the same training activities.

The situation was in part as a result of an absence of a needs assessment and the non-involvement of special schools. The officer in charge of training at the headquarters commented as follows:

*'Some fundamental problems existed regarding the absence of needs assessment which is very important in the organization of in-service training. There were also other issues regarding in-service training which emerged, that was the non-involvement of special educator in the planning of in-service training programmes' (training officer, headquarters).*

Joerger (2005) recommended that an assessment of teachers needs be conducted on a regular basis and the information gathered from routine assessment be used to design staff development programmes for teachers. Findings also revealed that the nature of difficulty respondents identified had to do with its content and relevance of in-service training programmes, as well as

activities designed with the general teacher in mind so the content fails to meet some specific needs of special teachers. These findings are in line with the findings of Ghana's Ministry of Education (1995). The Ministry of Education in an evaluation study of the effectiveness of in-service education indicated that there were several problems concerning the organization of in-service, its content and effectiveness. The argument here is that since teachers of the deaf were not involved in the planning and organization of workshops, their peculiar needs were not catered for thereby not helping teachers in meeting the teaching and learning needs of the deaf. About 51.1% of the respondents who indicated that they had benefited from the in-service/workshops did not use or applied ideas/methods in their teaching. This is because course content was not addressing the needs of teachers of the deaf. Lang et al. (2007) argued that an indication that professional working with the deaf meets with difficulties is seen in a receipt of constant flow of queries for assistance on a daily basis from a variety of educators and students requests for assistance. The range includes planning professional development workshops in school districts for special teachers.

The issue of not using knowledge and ideas gained from the workshops as indicated by the findings is consistent with the findings of Joyce (2005), who indicated in studies conducted on teachers who were involved in a workshop, that as little as five percent of the participants in a structured teacher in-service activity incorporates or transfers knowledge gained from an in-service workshop or activity to their repertoire. Even with proper feedback, only 50% will try it on although the research did not state whether course content was meeting participants' needs or not. Findings indicated that respondents did not benefit from workshop and so workshops did not have positive effect on their output. This could also mean that since resource materials were not sufficient at the workshops they attended, the training was not effective. About 71% of the respondents disagreed that resource materials were sufficient while 10.7% indicated they were given resource materials at the workshop.

Funding in-service training activities on regular basis have being a huge problem accounting for the few number of training sessions and the material resource deficits both in special schools and during training. This is buttressed by a statement made by the director in-charge of special education and training at the education headquarters, Accra:

*'Even though there are some other difficulties, the major one is funding, the issue of in-service training not being organized is because these workshops are supported with funds from Ghana Education Service, but the approval is based on availability of funds which is highly irregular.'*

This comment by the officer underscores the fact that

funding is a major problem militating against the provision of in-service education and training. Abolayi and Reneau (2006) noted that funding was a major factor hindering the provision of in-service training of Agriculture teachers in Nigeria.

The issue of lack of funds has led to the absence of in-service education for teachers and will lead to a situation where teachers will not be exposed to current practices or changes regarding methodology for the teaching of the deaf, and so will therefore not change to match global trends. This certainly does not agree with the in-service theory of change that states that every educational system should change with the culture, economic and technology to keep abreast with the changing demands of the time. Findings have indicated that funding had been a major hindrance to organising in-service training for teachers of the deaf.

## CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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