

## The Teacher in the Mirror: The reflective practices of Basic School Teachers in the Central Region of Ghana

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**Abstract:** This study assessed the level of reflection among basic school teachers in the Central Region of Ghana. The mixed method paradigm, employing the concurrent parallel design (Quantitative-qualitative) was adopted for the study. A total of 312 basic school teachers were involved in the quantitative phase through a systematic sampling technique. Twelve teachers who participated in the quantitative phase of the study were selected randomly for qualitative data collection. A pre-validated Likert-scale questionnaire made up of 29 items was adopted for the quantitative phase of the study. A semi-structured interview guide was designed by the researchers to gather qualitative data from the respondents. Both descriptive and inferential statistics were used to analyse the quantitative data whilst the interview was analysed thematically. The study revealed that even though the reflective practices of basic school teachers are moderate, they are practical, cognitive, learner-centered, meta-cognitive and critical. The study further established that gender, age and teaching experience predict the reflectivity level of the teachers. The study, therefore, recommends that the National Council for Teacher Education (NCTE) should make reflection a key component of teacher training curriculum in Ghana. Again, in-service training and periodic workshops should be organised by the Ghana Education Service for teachers to be educated on how they can effectively reflect on their classroom practices in order to maximize students learning.

### Key words:

Reflectivity, Reflective practice, Gender, Teaching Experience, Age.

## 1 Introduction

Invariably, teachers remain the single most important determinant of curriculum enactment, influencing the most critical aspect of education – learning. Being the target and imperative of all education reforms, learning or the quality of teaching outcomes has a lot to do with the quality of instruction which is defined by the adept display of quality teaching practices in the classroom [1-2]. Consistent with this conception, improving the

practices of teachers engages the attention of all governments, with emphasis on improving the lifelong professional development and growth of teachers. In Ghana, best teacher practices are inherent part of the curriculum that lie between policy proposals and practice; and embraces the interaction of three critical domains namely professional knowledge and skills, professional values and attitudes and professional skills (Ghana Education Service [GES], 2015). These domains, also referred to

as the set of competencies and teaching standards [3], altogether encapsulate subject matter knowledge, knowledge of children, general pedagogy, motivational competency, instructional process competency, resource utilization competency, evaluation competency, professional values and reflection, among others [4-6]. In fact, nationally and internationally all teachers are expected to possess these qualities and standards to be able to engineer better and desired teaching and learning outcomes for students. The growth of research interest in these areas is increasingly becoming intense, with authorship on reflective practices of teaching contributing, perhaps, the greatest literature and discourse [7].

According to [5], reflective practice is a professional requirement for teachers, an important competency-based rubric that foster effective implementation of any education proposal. The movement towards reflective practice in teacher education, development and growth aligns with a position that, it is only when teachers can question and examine their practices and competencies, as being right or wrong, that they adjust and stimulate quality instruction. In this manner, the change that education is expected to bring about, with the teacher at the core of it, lies with a reflective teacher [8].

Reflective practice is the knack and disposition of a teacher to mirror his action and inactions before, during, and after teaching or instruction [9-11] with the view to improving performance (for him/herself and eventually, the students). It begins with planning and mostly ends with strategies or ways to remodel and refine practice because of its cyclical in nature. Reflective practice is a cognitive examination of one's professional practices in totality, both what the he/she did and/ or what he/she could have done. Conceived as a pedagogical or skilled activity

that underline the choice, execution and remediation of a teacher's classroom activities [12-13], reflective practice facilitates a meaningful self-learning by juxtaposing past experiences into a broader repertoire of information, skills and techniques in order to make recovery decisions and judgements. The benefits of reflection to the learners is very well documented [6], with the school system clinching unto the ultimate benefits of better education outcomes in the long-term [14] suggest that in order to improve and transform school structures to meet the high-stakes accountability requirements, educators need to "assert the importance of changing minds, not just practices, through the messy processes of dialog, debate, and reflection" (p. vi).

Teacher education, development and growth in Ghana emphasize the imperatives of a reflective practitioner, drawing on the view that teaching is a complex task, not straight forward nor mechanical and requires reconstruction of plans and activities for success in the classroom [3]. Various policy documents have been explicit on the need for teachers to leverage reflective practices to drive the educational goals of the nation [15-16]. Evidently, through the works of Transforming Teacher Education and Learning [T-TEL] (2018), reflective practice is now a common feature in partner schools during off-campus teaching practice of student-trainees. This suggests that the issue of reflection is now prevalent in the teacher education curriculum in Ghana than it was the past few decades. Consistent with this conclusion, evidence is rare and unclear as to whether teaching in the basic schools in Ghana, undertaken by the older generation, amplifies the recent realizations and imperatives of reflection in the classrooms.

## Statement of the Problem

Several contexts provide the impetus for this study. First, the study draws from many international and local studies that have contributed to, rather, ways of developing reflection among teachers, with only a few reporting empirical findings on the level emphasis on reflection in the actual teachings in classrooms[17-19]. For instance, Persons and Stephenson (2005) authored a paper using social interaction to leverage the development of reflection among teachers in UK. There was no attempt to give a fairly comprehensive outlook of the reflectivity of the teacher, only for the students to conclude that the intervention had encouraged the teachers to undertake a range of practices including partnering with peers and experienced colleagues to improve their performance. Similarly, Chappell (2007) undertook a study using collaborative teaching observations and experiences of reflective practices to challenge the convention and conceptions of teaching Geography.

Additionally, whilst the local studies [15,6,20-21]are few and creates the impression that the phenomenon remains unexplored in Ghana, the focus of those studies in terms of content, analytical approaches and research setting, are quite different from the tenets and conception of this current study. In the local literature space, [20-21,15, 6] have contributed, mostly, positional papers on the subject covering varied focus. Besides, these studies employed mostly the qualitative approach to explore the phenomenon in Ghana. It can be argued, however, that the multi-dimensional nature of teacher reflection is best interrogated using both quantitative and qualitative strategies. It also seems that available studies on the phenomenon did not consider how teachers'

demographic characteristics could affect their reflective practices. It is, therefore, empirically and methodologically justifiable that this study is conducted using the mixed method approach to fill the content, methodology and geographical gaps identified in the literature. The study, therefore, sought answers to the following research questions:

1. What reflective practices are adopted by basic school teachers in the Central Region of Ghana?
2. What is the level of reflectivity demonstrated by basic school teachers in the Central Region of Ghana?
3. To what extent does a variable such as gender, age and teaching experience predict the level of reflectivity among Basic School teachers in the Central Region of Ghana?

## Theoretical Framework

This study was grounded in the theory of constructivism.[22] contends that "constructivism means that human beings do not find or discover knowledge so much as construct or make it" (p. 125). Constructivist theorists, [23-24] believe that experience is formed as a result of one's active participation in response to external stimuli. According to [25], "When adults enter any learning situation, they immediately begin to filter information based on their relevant repertoire of life experiences. They identify commonalities and discrepancies and employ cognitive processes to make sense of the situation" (p. 33). Therefore, a teacher's use of reflective teaching practice can enable him or her to build upon prior knowledge, seek appropriate resources, and develop new strategies to improve on his or her work. The constructivist process of reflection influences what a teacher perceives, feels, sees, and

learns [26]. This claim is bolstered by [27-28, 9, 12], who expressed the belief that reflective practice is based on active and critical inquiry of one's experience with problem solving. Thus, reflective teaching practice can result in teachers re-examining their teaching and using problem-solving techniques to improve upon their work.

According to [25], "significant learning for educators involves an active process of knowledge construction drawing from experience and other knowledge sources, making sense of new ways of thinking, and moving toward application in the context of practice" (p. 35). Therefore, the philosophical assumption is that through reflective teaching practice, teachers will derive meaning from their experiences, and thereby improving on their work. This improvement can occur through internal dialogue or in consultation with others' perspectives as well. In view of this, [22] asserted, "We continually test and modify these constructions in the light of new experiences" (p. 126). Therefore, teachers' use of reflective teaching practice can enable them to process their own learning experiences and analyze teaching outcomes. Through reflective teaching practice, teachers can become self-directed learners as they conduct research on teaching, apply diverse strategies, and record their experiences for future actions [29]. Reflective teaching practice can enable teachers to put complex ideas into practice as they seek better results in their teaching. This practice can lead to an improvement in their teaching and also improve student learning outcomes.

## Methodology

This study adopted the mixed method paradigm. Specifically, the study employed the concurrent parallel design (Quan-qual) to develop a complete understanding of the

research problem by obtaining different but complementary data. This design is considered the most appropriate as the researchers sought to triangulate methods by directly comparing quantitative results with qualitative findings for corroboration and validation purposes.

The population of the study comprised all basic school teachers in the Central Region of Ghana. According to the Human Resource Division of the Ghana Education Service [GES] (2017), there are 1200 basic school teachers in the Central Region. Therefore, a total of 312 Basic school teachers were involved in the quantitative phase. The decision to sample 312 teachers from a population of 1200 was influenced by Bartlett, Kotrlik and Higgins (2001) who argue that it is appropriate to sample 291 respondents from such a population. In order to increase external validity, the researchers increased the sample size to 312. The systematic sampling technique was used in the sampling process. This was done by picking every 4<sup>th</sup> teacher on the list provided by GES after an interval has been generated by dividing the population by the sample size. Subsequently, twelve teachers who participated in the quantitative phase were again selected randomly for the qualitative data collection. A pre-validated Likert-scale questionnaire made up 29 items was adopted from [30] for the quantitative phase of the study. The semi-structured interview guide was, however, designed by the researchers based on the objectives of the study. The researchers administered the questionnaire and collected them on the same day. The sampled teachers for the qualitative phase of the work were also interviewed after they finished responding to the questionnaire. Each interview took about 30 minutes. Field notes were taken alongside the tape recording for comparative analysis.

The analysis of the data was done in two stages. The first stage involved the use of descriptive statistics such as frequency counts, percentages, means and standard deviations and inferential statistics. In the second stage, the researchers studied the field notes, reduced the tapes into transcripts and elicited themes from them. Data integration was achieved by reporting results together in a discussion section of the study. Thus, the study first reported the quantitative statistical results followed by qualitative quotes or emerging themes that supported or refuted the quantitative results.

## Results and Discussions

This section dealt with the results and discussions of the data collected from the field.

It focused on the demographic characteristics of the respondents as well as the main data

that responded to the research questions that guided the study. The demographic characteristics of the respondents are presented in Table 1.

Table 1 shows that majority (55.1%) of the respondents were males whilst minority (44.9%) were females. Again, Table 1 shows that majority (39.7%) of the respondents were between 31-40 years whilst a few (10.3%) were between 51-60 years. Regarding the teaching experience of the respondents, the Table reveals that 30.4% have taught for 6-10 years whilst 9.0% have taught for either 21 years or more. The demographic characteristics of the respondents indicate clearly that teaching at the basic school which has always been a female-dominated enterprise seems to be changing.

**Table 1:** Demographic Characteristics of the Respondents

Variable	Subscale	N	%
Gender	Male	172	55.1
	Female	140	44.9
Age	20-30yrs	96	30.8
	31-40yrs	124	39.7
	41-50yrs	60	19.2
	51-60yrs	32	10.3
Teaching Experience	0-5	87	27.9
	6-10	95	30.4
	11-15	66	21.2
	16-20	36	11.5
	21 and above	28	9.0

Source: Field Data, 2018

This is quite significant in the development of education in Ghana as it refutes earlier

assertion by Atuahene and Owusu-Ansah (2013) that the Ghanaian educational system

trains more female teachers than males. The ages of the respondents presuppose that they may commit much energy to their teaching practices. As such, it is expected of them to reflect on their daily practices in order to maximize students learning. The varied teaching experience also implies that majority of the respondents have been in the teaching profession for relatively long and are, therefore, likely to provide appropriate responses for such a study.

### Research Question One: What reflective practices are adopted by basic school teachers in the Central Region of Ghana?

The intent of this research question is to identify the reflective practices of Basic school teachers. The responses from the questionnaire which were analysed into mean of means and standard deviations are presented in Table 2.

**Table 2:** Teacher Reflective Practices

Reflective Component	Mean	SD
Practical	3.0	1.1
Cognitive	3.2	1.1
Learner	3.4	1.0
Meta-Cognitive	3.8	.99
Critical	3.5	1.1

Source: Field Data, 2018

Table 2 shows that basic school teachers engage in various reflective practices. From the results, the most reflective practice undertaken by the teachers is in the area of meta-cognition (Means = 3.8, SD = .99). Meta-cognition deals with teachers' knowledge of their personality, their definition of learning and teaching and their definition of their profession [30]. The teaching profession demands that teachers constantly reflect on their ontological and epistemological strands.

By this, they are able to shape classroom experiences based on these positions. Another reflective practice that teachers engage in is critical reflection (Mean = 3.5, SD 1.1). In the teaching and learning process, there are political and social issues that affect implementation. The socio-political environment demands that teachers reflect in order to make decisions that would enhance and improve students' learning. The teachers further agreed that they engaged in Practical reflection (Mean = 3, SD = 1.1). Thus, the teachers engage in the actual act of reflection by using different tools, such as keeping journals and talking to colleagues. This is not surprising giving the fact that teacher always spend their break periods with their colleagues. It is, therefore, likely that they may use such periods to talk to their colleagues about their teaching practices and solicit the necessary advice on how they can improve on such practices. The emergence of digital technologies also means that teachers are likely to have easy access to online journals and other texts that can help them to shape and improve their teaching. It can, therefore, be assumed that teachers would make effort to use the materials available to them in their environment to improve their professional practices. As indicated in Table 2, the teachers agreed that they practice cognitive reflection (Mean = 3.2, SD = 1.1). This means that the teachers have been making conscious effort to develop themselves professionally by attending conferences and reading professional books and journals in their subject areas. Arguably, all these practices exhibited by the teachers would change the learners' behaviours and performance and make learners active in their educational endeavour [30].

### Research Question Two: What is the level of reflectivity demonstrated by basic

### school teachers in the Central Region of Ghana?

The second research question sought to measure the level of reflection among basic school teachers in the Central Region of Ghana.

Table 3 presents the level of reflection among basic school teachers in the Central Region of Ghana. It is evident from the results that even though the teachers reflect on their daily practices, the level of reflection is generally moderate (Overall Mean = 3.4, Average SD = 1.1).

The level of reflection which was measured on a five-point-Likert scale is presented in Table 3.

**Table 3:** Level of Teacher Reflection

Statement	Mean	SD
I have a file where I keep my accounts of my teaching for reviewing purposes.	3.3	1.4
I talk about my classroom experiences with my colleagues and seek their advice/feedback.	3.6	.91
After each lesson, I write about the accomplishments/failures of that lesson or I talk about the lesson to a colleague.	2.8	1.0
I discuss practical/theoretical issues with my colleagues.	3.3	1.1
I observe other teachers' classrooms to learn about their efficient practices.	3.1	1.1
I ask my peers to observe my teaching and comment on my teaching performance.	2.4	1.2
I read books/articles related to effective teaching to improve my classroom performance.	3.8	1.0
I participate in workshops/conferences related to teaching/learning issues.	3.7	1.1
I think of writing articles based on my classroom experiences.	2.4	1.2
I look at journal articles or search the internet to see what the recent developments in my profession are.	3.3	1.0
I carry out small scale research activities in my classes to become better informed of learning/teaching processes.	3.1	1.1
I think of classroom events as potential research topics and think of finding a method for investigating them.	3.1	1.1
I talk to my students to learn about their learning styles and preferences.	3.7	1.1
I talk to my students to learn about their family backgrounds, hobbies, interests and abilities.	3.3	1.0
I ask my students whether they like a teaching task or not.	3.3	1.0

As a teacher, I think about my teaching philosophy and the way it is affecting my teaching.	3.7	1.1
I think of the ways my biography or my background affects the way I define myself as a teacher.	3.3	1.1
I think of the meaning or significance of my job as a teacher.	4.2	.85
I try to find out which aspects of my teaching provide me with a sense of satisfaction.	3.9	.93
I think about my strengths and weaknesses as a teacher.	4.3	.85
I think of the positive/negative role models I have had as a student and the way they have affected me in my practice.	3.6	1.0
I think of inconsistencies and contradictions that occur in my classroom practice.	3.5	1.1
I think about instances of social injustice in my own surroundings and try to discuss them in my classes.	3.4	1.2
I think of ways to enable my students to change their social lives in fighting poverty, discrimination, and gender bias.	4.0	1.0
In my teaching, I include less-discussed topics, such as old age, AIDS, discrimination against women and minorities, and poverty.	3.3	1.1
I think about the political aspects of my teaching and the way I may affect my students' political views.	2.7	1.1
I think of ways through which I can promote tolerance and democracy in my classes and in the society in general.	3.9	1.0
I think about the ways gender, social class, and race influence my students' achievements.	3.4	1.2
I think of outside social events that can influence my teaching inside the class.	3.7	1.1
Mean of Means/Average Standard Deviation	3.4	1.1

Source: Field Data, 2018

This means that whereas some of the reflective practices assumed great importance in the teaching and learning process, others are not prioritised. For example, the teachers gave priority to practices such as participating in workshops/conferences related to teaching/learning issues (Mean = 3.7, SD = 1.1), finding out which aspects of their teaching provide them with a sense of satisfaction (Mean = 3.9, SD = .93) and

thinking about their strengths and weaknesses as teachers (Mean = 4.3, SD = .85). All the teachers interviewed pointed out clearly that they reflect on some of their classroom practices. For instance, one teacher elucidated:

*The Ghana Education Service (GES) organises periodic workshops and conferences for us. Most of these workshops*



*and conferences relate directly to our practices as professionals. I don't miss such platforms because it enables me to reflect on my teaching.*

Another teacher affirmed:

*After teaching, I always take some few minutes to think about what went on well and where I fell short. This helps me to improve my lessons.*

However, the teachers sparingly reflected on the political aspects of their teaching and the way they may affect their students' political views (Mean = 2.7, SD = 1.1), writing articles based on their classroom experiences (Mean = 2.4, SD = 1.2) or writing about accomplishments/failures of a lesson to a colleague (Mean = 2.8, SD = 1.0) recorded high standard mean. The interviews further reinforced this position. For instance, one of the teachers said:

*I have never written any article on my teaching practices ever since I was appointed neither do I document my achievements or failures to a colleague.*

Another teacher maintained:

*Since I graduated from the university some 20 years ago, I have never written any piece about either my success or failures in the classroom. In fact, I hardly write any article or paper about my practices as a professional teacher.*

Paying least attention to some of the critical dimensions of the teaching and learning enterprise means that students' growth and development in these areas may be severely hampered. For example, the underutilisation of action research as a way of curbing the problems students encounter in their learning means that the students who exhibit learning difficulties may not have the necessary support from the teachers. As intimated by [31], action research provides

practitioners with new knowledge and understanding about how to improve educational practices or resolve significant problems in classrooms and schools. The neglect of reflecting on article writing from their own experiences mean that teachers may not understand how and why students write in order to create conditions that would enable students to become skilful writers [32]. The findings of this study contradict that of Hegarty (2011) who found that teachers were engaged in noticing their experiences and through the analysis of these, were able to gain new knowledge about their practice, make decisions based on that learning, and set goals for future actions. Apparently, the moderate practice of reflection in the classroom means that the teachers may lack a sense of autonomy and authority to make informed decisions in their classrooms [33]. The teachers may, therefore, lack self-awareness and self-knowledge of their own practices as professionals.

### **Research Question Three: To what extent does gender, age and teaching experience predict the level of teacher reflection among Basic School teachers in the Central Region of Ghana?**

The third research question was to ascertain the extent to which teacher demographics such as gender, age and teaching experience predict the level of teacher reflection among basic school teachers in the Central Region of Ghana. The Linear Regression results which was computed is presented in 7.

A multiple linear regression was calculated to predict teacher reflective practice based on gender, age and teaching experience. The F statistic in the entire model is statistically significant ( $p = 0.010$ ). This means that the model could be used to

determine how gender, age and teaching experience predict the reflective practices of the teachers. A significant regression equation was found ( $F(3, 308) = 3.831, p < .010$  with and  $R^2$  of .036. This also means that teacher reflective practice explains 36% of the variation in the dependent variable.

This implies that there are other factors that account for 64% of teacher reflective practice. The teachers' predicted reflective practice is equal to  $3.590 - .013$  (Teaching Experience)  $+ .029$  (Age)  $- .169$  (Gender), where teaching experience was measured as 1 = 0-5years, 2 = 6-10years, 3 = 11-15years, 4 = 16-20years, 5 =

21 and above years. Age was measured as 1 = 20-30years, 2 = 31-40years, 3 = 41-50 years 4 = 51-60 years and gender was coded 1 = Male, 2 = Female. The results imply that gender, age and teaching experience predict teacher reflectivity. It, however, presupposes that gender and teaching experience predicts teacher reflectivity negatively whilst age predicts teacher reflectivity positively. Interestingly, it is only age among all the dependent variables that is statistically significant. The results of this study contradict that of [18] that teacher demographic characteristics do significantly affect teacher reflective practice.

**Table 7:** Effect of Teacher Demographic Characteristics on their Reflective Practice

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.590***	.093		38.568	.000
Gender	-.169***	.052	-.186	-3.262	.001
Age	.029	.028	.061	1.021	.308
Teaching Experience	-.013	.021	-.038	-.639	.523
Number of Observations	312				
R <sup>2</sup>	.036				
Adjusted R-Squared	0.027				
F	3.831				
P	.010				

Dependent Variable Reflective Practice

P-Values in parenthesis: \*  $P < 0.10$ , \*\*  $P < 0.05$ , \*\*\*  $P < 0.01$

### Conclusions and Implications for Policy and Practice

The study has established that although the level of reflection among basic school teachers in the Central Region of Ghana is moderate, their reflective practice components were practical, cognitive, learner-centered, meta-cognitive and critical. The

study further revealed that gender, age and teaching experience were predictors of teacher reflective practices. In view of these findings, it is concluded that teachers are not being reflective enough on their practices in the classroom. This implies that the academic performance as well as academic standards of basic schools would continue to dwindle if

teachers do not make effort to improve their reflective practices in the classroom. Based on these findings, the study recommended that the National Council for Teacher Education (NCTE) should make reflection a key component of teacher training curriculum in Ghana. Again, in-service training and periodic workshops should be organised by the Ghana Education Service for teachers to be educated on how they can effectively reflect on their classroom practices in order to maximize students learning. In order to revitalize teaching and learning in Ghanaian basic schools, teachers need to be critical in their daily practices as professionals.

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