Teachers' Standards in Ghana's Initial Teacher Education Programme:
Some Implementation Issues and Challenges

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Abstract

Ensuring high standards in the preparation of teachers is critical for the effective professional practice of the Ghanaian teacher. This study examines the National Teachers Standards (NTS) for teachers in Ghana with particular focus on the initial teacher education (ITE) programme, and how tutors and student teachers (mentees) apply the NTS. Adopting a mixed methods approach to the collection of data from participants (368 tutors, 3,600 students of whom 408 are mentees), the findings of this study show that not all of the tutors apply the NTS in their practice as expected. The study also found that few of the student teachers (mentees) demonstrate application of the NTS. In terms of policy, there is a need to deepen further training for tutors if they are all expected to implement the NTS as intended.

Keywords: Competencies, Internship, Mentees, Student teachers, Teachers, Tutors

1. Introduction

The growing concern over the quality of students learning in many countries and the significant effect of teaching performance on students' learning outcomes has been shown in research studies (Hattie, 2008; Barber & Mourshed, 2007; Hanushek & Rivkin, 2006; Rivkin et al., 2005; Rockoff, 2004; Nye et al., 2004). In response to such concerns, some countries have introduced teaching standards to define the minimum expectation of teachers (Ingvarson & Kleinhenz, 2007). Teaching standards support the improvement of teacher performance. Sergiovanni and Starrat (2002) suggested that professional standards can provide a useful framework for teachers to reflect on their practice and talk to each other about their work. Darling-Hammond (2006), Pyke and Lynch (2005), and Danielson and McGreal (2000) have

all found that the formative purposes of standards-based teacher evaluation systems lead to enhanced professional learning because they allow teachers to play an active role in self-directed enquiry. The development of standards for teachers and school principals is recent in most developing countries (OECD 2013) like Ghana, where initial teacher education (ITE) institutions relied on their own different guidelines for preservice teacher preparation. This has raised a lot of concerns among stakeholders about the lack of a national standard to guide teacher preparation and practice. Also, there were additional concerns about how passing examinations and not acquisition of the requisite professional teaching skills and competencies was driving Ghana's teacher preparation. To address these concerns, the 2008 Education Act (Act 778) established the National Teaching Council with a mandate to establish frameworks around teachers' employment, continuous professional development (CPD), and periodic review of professional practice and ethical standards (MoE 2017a). The National Teachers' Standards (NTS) was developed and introduced in line with government directives on teacher preparation. They were introduced to ensure efficient professional knowledge, professional values and attitudes and professional practice for the teacher and subsequent quality education for the Ghanaian child. With this introduction of standards, all tutors in ITE institutions were expected to apply the NTS in their lessons. Also, all preservice teachers (student teachers or mentees) are expected to demonstrate that they are acquiring the competencies in the three domains of the NTS. As a new intervention in teacher preparation, monitoring how the NTS is being implemented in the ITE institutions in particular, the colleges of education (CoEs) are a requirement. This paper presents findings on how the NTS is currently being enacted by tutors and student teachers. The paper highlights the extent to which tutors and student teachers (mentees) are applying the NTS to optimise their teaching and learning experiences.

The teacher plays a key role in nation-building through encouraging and guiding the development of learners. They represent a valuable human resource and play an important role in the development of the national economy (Vedika, 2016).

To this end, special attention is given to teacher preparation. This is because teacher quality has been identified as a key determinant in influencing student outcomes (Musset, 2010). This calls for improving the quality of teaching at the beginning of preservice teacher preparation that demands critical consideration in the area of knowledge of the content to be taught, knowledge about the learners, knowledge of the art of teaching with assessment as a guide, as well as an environment conducive to teaching and learning. Darling-Hammond and Baratz-Snowden (2005), for instance, identify three key areas of knowledge that any ITE programme should include in the training of teachers: knowledge about learners and the way they learn in the framework of the social context; appreciating course content and the goals of the curriculum in consonance with the social aims of education; and comprehending the art of teaching of the content as well as the learners who are to be taught as guided by assessment with the support of a productive classroom environment. Further, it has been found out that it is critical to define standards for teachers to achieve the objectives; to support the improvement of teacher performance; for certification of teachers who are new to the teaching profession or who have attained a certain status as teachers; for assessment of

teacher performance; and for the evaluation and accreditation of teacher education institutions (OECD, 2013).

The OECD (2005) notes that teachers are the school variable that most impacts student achievement, and so any education reform that does not consider teacher education is not deemed effective (OECD, 1998). ITE preparation plays a critical role in equipping teachers with the requisite skills and competencies. ITE is the professional preparation before individuals take full responsibility for teaching one or more classes of pupils (Schwille & Dembélé, 2007). It has a professional mindset as its basic foundation and equips the teacher with the necessary tools to make meaningful learning in the classroom a reality (Caena, 2014). The focus of Ghana's ITE reform is to prepare "effective engaging and inspirational teachers who can help achieve enhanced learning outcomes and opportunities for all pupils" (MoE, 2017a). Ghana's Education Acts (Act 778 and Act 847) were passed in 2008 and 2018 respectively, as the legal basis for ITE reform. The latter sought to upgrade colleges of education (CoEs) from a three-year diploma awarding to four-year degree-awarding institutions (Buabeng, Otami, & Ntow, 2020), with their primary focus on improving the education landscape in Ghana.

The Transforming Teacher Education and Learning (T-TEL) programme (Note 1) which was implemented between 2014 and 2020, placed emphasis on improving the classroom practice of teacher educators through activity-based teaching and learning using teaching and learning materials (TLMs), and group work. Underpinning the six-year T-TEL programme and the education reform is the view that participatory and active learning, using appropriate TLMs to foster learner-centred pedagogy, can impact the quality of teaching and learning in CoEs and subsequently the basic school classrooms (MoE, 2017a). For teachers to discharge their duties effectively with the right skills and characteristics (Musset, 2010), it is considered necessary to begin preparing them at the entry point of their professional career.

Indeed, "to teach is a complex and demanding intellectual work, one that cannot be accomplished without the adequate preparation" (Musset, 2010, p. 3). To address this complexity, teachers need to be prepared to exhibit high standards in knowledge, conduct, and practice in the workplace. This requires a well-structured ITE programme that creates an effective linkage between theory and practice (Australian Institute for Teaching and School Leadership, 2011), which should be standardised. According to OECD's comparative study on standards (OECD, 2013), three components of standards have been reviewed focusing on content, evidence for assessment, and performance. The content standards seek to answer the question on what teachers, students or school principals know and are able to do. In the case of Ghana's ITE, the standards apply to tutors and lecturers in ITEs, student teachers, beginning teachers in their induction year in schools, and practicing teachers for career progression and development (MoE, 2017a).

Ghana's NTS defines the minimum levels of practice that are expected of student teachers and teachers to be licensed. These standards are concise written statements of the criteria against which teachers are to be assessed. The three domains of Ghana's NTS are Professional Knowledge, Professional Values and Attitudes, and Professional Practice (MoE,

2017a). It is argued that teaching standards are very relevant because of the strong relationship that they have with learning outcomes as they are used to streamline instruction and ensure that teaching practices deliberately focus on agreed upon learning targets (OECD 2013). Teacher education reform in Ghana introduced the NTS to be used in the sense of accreditation benchmarks, to judge whether an ITE institution meets national government requirements. They are also used to certify teachers and assess their performance. For instance, all new teachers must prove that they meet the standards in order to be licensed to teach.

As a guide for teacher preparation, the NTS is ~~are~~ used to develop national teacher education curriculum framework (NTECF), curriculum, course manuals and continuous professional development materials and to build the capacity of tutors of CoEs and mentors who in turn use them to prepare student teachers (MoE, 2017b). A key requirement of Ghana's NTS and the NTECF is to pay attention to the new things introduced in the initial teacher education curriculum. For instance, the curriculum is designed to integrate pedagogical knowledge and practice across all subjects in the curriculum; and for student teachers to spend sustained and supported periods undertaking internship/practicums in designated partnership schools under the supervision of mentors (MoE, 2017a, 2017b). The two policy documents (the NTS and NTECF) also introduced specialisation. For instance, teachers should be trained to specialise in primary school (lower primary and upper primary), or junior high school (JHS). In the latter, specialism is focused more on the subjects in the JHS curriculum. The CoEs started implementing the NTS in the beginning of the 2018 academic year.

A key feature of Ghana's teacher education reform is monitoring the implementation to assess achievements of the NTS and how the standards are being applied. Assessing achievement of standards depends on the type of standard, which determines the option for collecting evidence in terms of achievement (OECD, 2013). To measure teachers' practice, including practical tasks about how they promote an enabling environment of classroom learning, evidence can be collected through direct or recorded classroom observations of performance (Santiago & Benavides, 2009). Focusing on the assessment of achievements of the NTS implementation, the evidence presented in the next section highlights the approach used to measure the extent of application of NTS among college tutors and student teachers.

2. Method

2.1 Research Design

Using a mixed method approach, the study explored how CoE tutors and student teachers (mentees) enact the NTS. In particular, how CoE tutors and mentees apply the NTS in their teaching experience was explored. The study adopted a combination of different probability sampling strategies to draw a useful sample. Sampling strategies involved multistage sampling where districts and schools were first purposively sampled, stratified and selected systematically before the simple random sampling technique was used to finally select the participants proportionally. This was adopted to achieve a sample representation of the target population.

2.2 Context

There are forty-six (46) CoEs in Ghana located in fifteen (15) regions across the country within which education districts with basic schools exist. Some of these basic schools are located within the vicinity of CoEs and have been designated as partnership or practice schools who offer the opportunity for close study or internship/practicum. During teaching practice, student teachers (mentees) from the CoEs are placed under the guidance of mentors who introduce them to teaching and its routines to develop the required professional skills and competencies.

2.3 Sampling and Sample Size

A total of 20 CoEs were purposively sampled for classroom observation with tutors across the five geographical zones (Northern, Ashanti/Brong Ahafo, Eastern/Greater Accra, Western and Volta) (Note 2). To facilitate the analysis of subgroups, CoEs were further stratified according to the sex composition of student teachers (*i.e.*, female-only CoEs, male-only CoEs, and mixed-sex CoEs). As the study also sought to explore the possible gender dynamics within CoEs, a deliberate effort was made to include mixed-sex CoEs in the sample. The selection of the mixed-sex CoEs was done randomly from each five zones. In terms of female only CoEs, all 6 of them were purposively sampled and 2 were randomly selected for the study. In total, 2 female-only CoEs, and 18 mixed-sex CoEs were sampled. For each of the 20 CoEs that were selected, an average of 18 tutors who teach the core subjects (English, Mathematics, and Science) at 2-year course levels were randomly sampled. The method of selection of tutors was stratified using random sampling in which tutors were first categorised by subject and level (Year 1 or Year 2), after which they were randomly selected. A total of 368 tutors were engaged.

Ten student teachers (five males and five females) were randomly selected from a class in which a tutor was observed to triangulate the results of how the NTS is being applied. A total of 3,600 student teachers were sampled to participate and they responded to a self-administered questionnaire. Some 408 student teachers (who are also mentees in partnership schools) were sampled from the total student teachers selected for the study and observed in their partnership school.

2.4 Data Collection and Analysis

A confidence level of 95% was adopted for tutors, and student teachers (mentees). To ensure a conservative sample size, a highly heterogeneous population with a maximum degree of variability of 50% was assumed. This is to ensure that in the case where the study is replicated using different participants from the same population, but selected with the same sampling method, there would be 95% certainty that outcomes would be within a range or interval of +/-5% of outcomes in the present study.

Three main methods were employed to provide one composite dataset on how tutors apply the NTS: lesson observations, follow-up interviews with tutors, and self-administered questionnaires with student teachers. Based on the assessment by mentees, a composite performance rating was computed. Information that was collected from tutors was further

triangulated with the mentees who had been sampled. Overall, 20 focus group discussions (FGDs) and 20 key informant interviews (KIIs) were carried with tutors.

CoE tutors' and student teachers' application of the three domains as well as competencies of the NTS was the focus of the study. Both quantitative and qualitative data was collected. The quantitative data was analysed using SPSS and the interview data were transcribed. Responses from participants were collated into themes with processes of coding and recoding (Creswell, 2012).

3. Results and Discussion

3.1 The NTS in Practice by Tutors

The study sought to measure the percentage of tutors and mentees who applied the NTS to guide teacher preparation and practice in their lessons. Through observation and interviews, the following results in table 1 shows the percentage of tutors who applied the NTS.

Table 1. Tutors applying of the NTS by sex and subject (%)

Subject	Male	Female	Overall
English	57.7	72.2	62.0
Mathematics	59.4	52.6	58.4
Science	61.8	50.0	59.8
Total	**59.7**	**61.3**	**60.1**
Total (N)	293	75	368

As illustrated in Table 1, 60.1% of the sampled tutors observed were found to have applied the NTS as expected of CoEs by gender and subject (English, Mathematics or Science) taught. From Table 1, slightly more 61.3% of female tutors and that 59.7% of male tutors were observed demonstrating the application of the NTS generally. It should be noted that even though about half of the tutors sampled applied the NTS according to the results above, overall, only 60% of this indicator was achieved. This indicates that about 40% of tutors were not implementing the NTS. The striking differences observed in male and female tutors implementing the NTS requires attention and addressing. As a representative sample this observation suggests that more work needs to be done to ensure that all tutors in CoEs are fully implementing the NTS. This evidence also has implications for students who are the targets of this mixed educational delivery, if they are to fully benefit from instructional delivery. As OECD (2005) has noted in the literature, teachers are the very variable of the school that mostly impact student achievement. It is argued that any education reform that does not put full premium on educating the teacher appropriately, is not effective (OECD, 1998). In this case, students of the 40% of tutors who are not applying the NTS in their

lessons will end up not being fully and adequately prepared.

Tutors were also observed for the demonstration of the teacher competencies in the NTS during their teaching as indicated in the table below:

Table 2. Observation scores for tutors demonstrating NTS by sex (%)

Teacher Competency	Male	Female	Overall
Creates a safe, encouraging learning environment	97.6	97.3	97.6
Listens to students and gives constructive feedback	93.5	96.0	94.0
Employs a variety of instructional strategies that encourage student participation and critical thinking	90.4	89.3	90.2
Exhibits ethical teacher codes of conduct during lesson delivery	78.8	78.7	78.8
Pays attention to all students, especially girls and those with special educational needs, ensuring their progress	42.3	56.0	45.1
Explains concepts clearly using examples familiar to students	41.6	42.7	41.9
Uses a variety of assessment modes during teaching to support learning	38.2	50.7	40.8
Demonstrates effective, growing leadership qualities in the classroom	28.3	41.3	31.0
Produces and uses a variety of teaching and learning resources that enhance learning, including information, communication and technology	30.0	32.0	30.4
Uses age and grade-appropriate strategies in the lesson	13.7	9.3	12.8
Understands how children develop and learn in diverse contexts and applies this in teaching	13.3	10.7	12.8

According to Table 2, which presents classroom observations, it must be noted that teachers scored high regarding certain competencies and low on others. For instance, teachers scored high on the key drivers for the indicators such as 'creates a safe, encouraging learning environment' (97.6%), 'listens to students and gives constructive feedback' (94.0%), and 'employs a variety of strategies to encourage participation and critical thinking' (90.0%). Interestingly, tutors scored least on the 'use of grade-appropriate strategies in the lesson' (12.8 %), and 'understand how children develop and learn in diverse contexts' (12.8). Tutors' mastery and demonstration of all the competencies is critical for student teachers to emulate. For basic schoolteachers to pass licensure examinations, induction placement and subsequent promotion, they are required to demonstrate the acquisition of the competencies. Generally, the weak performance against most of the competencies by tutors has serious implications for student teachers during the periods they are undertaking internship and after graduation. The demonstration of the competencies in the NTS is one of the core areas of emphasis in the ITE

reform in Ghana. It is therefore important that the tutor's weak performance against the competencies is addressed. The study also sought to capture evidence on tutor's knowledge of the entirety of the NTS.

3.2 Knowledge and Application of the NTS by Tutors

3.2.1 Understanding NTS

Most tutors interviewed about their knowledge of the NTS gave the impression that they had a good understanding of the NTS and how to apply them. Some alluded to the fact that they had been taken through the domains and subdivisions of the standards during professional development (PD) sessions and were guided to integrate the NTS in their lesson objectives. Tutors also revealed that they had been issued copies of the NTS to serve as a guide and reference. Some comments from focus group discussions (FGDs) and key informant interviews (KIIs) with tutors of their knowledge and understanding of the NTS include:

> *"We do understand the standards because we have been taken through the areas one by one during our PD sessions. So, I am convinced that we have a good understanding. We have also been given copies as a guide." (FGDs)*

> *"I understand the NTS. For me, I will say it has become my Bible—because what it entails is what we do." (FGDs)*

> *"The NTS is part of the PD sessions we attend. As such, we have a clear and broad understanding of the NTS and how to apply them in our field of practice." (FGDs)*

> *"One thing that is very beautiful about the PD session is that, previously, we rush to pick an objective from the curriculum then straight away, you begin to set up your lesson objective. But now, when you pick an objective from the curriculum, you must refer to the NTS to check whether it falls within the standards. So now it is very clear that whatever you do in the classroom, you must ensure that it follows the standards before you go ahead to do it." (KIIs)*

> *"Since participating in the PD sessions on the NTS, I now involve less vocal student teachers, thus, those who don't want to participate more in the lesson as required in the NTS." (KIIs)*

> *"Previously, we used to set lesson objectives anyhow but now, we have gone objective setting during our PD sessions so when we set objectives, we refer to the NTS handbook to make sure that we are following the standards." (KIIs)*

3.2.2 Applying NTS

The above interview excerpts from some tutors show that some do understand and are using the NTS. The surprising thing is that most tutors still scored very low on the application of the NTS in their lessons, for instance, in the areas of 'paying attention to all students, especially girls', 'clear explanation of concepts', 'use of variety of assessment modes', 'effective leadership qualities', 'use of variety of learning resources', 'teaching student teachers how to employ age- and grade-appropriate strategies' and focusing on 'teaching how

children learn'.

Data was captured to understand challenges with regards to the application of the NTS. From the interviews, to understand the challenges in the application of the NTS in their lessons, tutors mentioned time limitations and overloaded curriculum as challenges. They indicated that they did not have enough time to go into detailed requirements in the NTS to apply them to every lesson. They explained that the time available for them to complete the curriculum before the examination is limited. This observation suggests that there is still some focus on passing examinations in the teacher education programme which the ITE reform had sought to address.

Moreover, some tutors indicated that they did not have adequate understanding of the three domains of the NTS and how they were applied. They explained further that previously they were teaching a course called 'teaching methodology' during one semester, and then the content and theory of the other subjects in the following semester. However, as per the structure of the NTS and the NTECF, tutors are expected to demonstrate professional values and attitudes, professional knowledge, and professional practice in every subject at the same time (MoE 2017b), which tutors consider as presently demanding due to limited time. These tutors claimed that additional training and capacity building on the NTS were needed to improve their understanding and application. Challenges related to inadequate TLMs during lesson delivery were also mentioned. The tutors explained that the usage of appropriate TLMs would make teaching more practical and enhance students' learning and understanding in line with the NTS and NTECF.

3.2.3 Challenges in Applying NTS

Here are some comments highlighting tutors' challenges in the application of NTS in terms of time and technical language of the NTS:

> *"I think the indicators are numerous so it will take time for us to apply all the subdivisions of the NTS in our practice. Also, some of them are difficult to apply in the sense that as you are planning your lesson, you must go to the NTS handbook to find out the configuration numbers. That is a challenge." (FGD)*

> *"There are some terminologies in the NTS handbook which need further explanation. Even though it's a good document, I will advise they keep taking us through a regular workshop to provide further explanation of terminologies and other important things because the book is quite detailed." (FGD)*

> *"We need more training on the NTS because some aspects are a bit confusing." (FGD)*

> *"The understanding of the NTS is not thorough. We have something in the NTS known as professional values, professional knowledge, and professional practice ... Sometimes, when you are trying your possible best to fuse them in your lesson, it becomes very difficult. You may apply them though, but you might not get to the nitty-gritty of them ... It's difficult." (FGD)*

> *"The understanding of the three domains and how to apply them in our lesson notes is a*

challenge. (FGD)

"We need to be given more exposure on how to fuse the NTS into our lessons and even how to go about our teaching." (FGD)

3.2.4 Contextual Issues

In addition to time and lack of understanding of some of the concepts of the NTS, some tutors also pointed to other contextual issues such as unequal infrastructural facilities in CoEs across the country as a challenge in ensuring consistency and uniformity in demonstrating the professional practice component of the NTS. They explained that tutors might have a good understanding of the three domains of the NTS, but that inadequate TLMs, infrastructure deficits and other resource constraints in CoEs could negatively impact how tutors demonstrated professional practice. For instance, some tutors said:

"We are expected to display uniformity in applying the NTS in all CoEs ... and you may have professional knowledge and professional values, but the condition of the school environment may prevent you from fully applying the professional practice. The environment and conditions in terms of available TLMs, adequate infrastructure, and resources in my CoE are different from what is in maybe Upper West or Upper East region. So, our professional knowledge and values can be uniform, but our professional practice will not be the uniform." (KIIs)

"With the course that I teach, basically, they are practical courses and most of the time our classroom settings and the nature of the course content produces some sort of limitations…especially in implementing the skill development component of the NTS. We don't have TLMs to bring out the practicality of the lessons." (KIIs)

Inadequate TLMs, infrastructure deficits and other resources constraints in CoEs as mentioned by tutors' act as barriers that prevent tutors from applying the NTS as expected. These include resources, for instance, that are needed for using variety of assessment modes during teaching to support learning, the production and usage of variety of teaching and learning resources that enhance learning, including information, communication and technology, as well as using age and grade-appropriate strategies in the lesson as suggested in the NTS and NTECF (MoE, 2017a, 2017b).

Tutors' ability to apply the three domains and demonstrate the competencies are consequently hindered by lack of resources and other contextual constraints. The low number of tutors who apply the NTS is consequently a threat to the successful implementation of the NTS in all CoEs.

3.3 NTS in Practice by Mentees

The study also ascertained whether mentees (student teachers) applied the NTS in their preparation and practice during internship. The percentage of mentees who applied the NTS is presented in Table 3.

Table 3. Mentees applying the NTS by sex and subject (%)

Sex	English	Mathematics	Science	Total
Male	27.7	27.6	23.6	26.1
Female	18.8	21.2	17.0	19.0
Total	22.4	25.3	21.1	23.0
Total (N)	116	150	142	408

As illustrated in Table 3, out of the total number of 408 mentees observed, only 23.0% were observed to have applied the NTS. The results further revealed that 26.1% of male and 19.0% female mentees demonstrated an application of the key competencies in the NTS. Additionally, mentees' application of the NTS were also analysed based on the basic school levels at which they were engaged in their internships.

Table 4. Mentees' demonstration of application of the NTS by sex and level (%)

Sex	Lower Primary	Upper Primary	JHS	Total
Male	27.0	16.1	34.6	26.1
Female	23.0	22.1	8.9	19.0
Total	24.5	18.6	26.9	23.0
Total (N)	98	161	149	408

With respect to application of the NTS at the basic school level at which mentees embarked on their internships, the results in Table 4 above revealed that just slightly more than a quarter (34.6%) of the males and only 8.9% the females of those at the JHS level who were observed, were judged to have applied the NTS. About a quarter of mentees (27.0% males and 23.0% females) at the lower primary level were observed to be applying the key components of the NTS, while of those at the upper primary level, only 18.6% (16.1% males and 22.1% females) showed the application of key components of the NTS. Again, the scores were low on most individual competencies. The competency of student teachers based on the requirements in the NTS was explored and the results presented in Table 5.

Table 5. Mentee competency scores

Competency	Male	Female	Overall
Creates a safe, encouraging learning environment	98.7	96.6	97.8
Listens to students and gives constructive feedback	42.9	93.7	95.6
Employs a variety of instructional strategies that encourage student participation and critical thinking	90.6	87.4	89.2
The mentee exhibits ethical mentor codes of conduct during lesson delivery	91.5	82.2	87.5
Plans and delivers varied and challenging lessons, showing a clear grasp of the intended outcomes of their teaching	87.6	71.8	80.9
Explains concepts clearly using examples familiar to students	58.6	51.7	55.6
Manages behaviour and learning with small and large classes	43.2	49.4	45.8
Uses a variety of assessment modes during teaching to support learning	43.2	42.5	42.9
The mentee demonstrates effective, growing leadership qualities in the classroom	30.8	29.3	30.2
Pays attention to all students, especially girls and students with special educational needs, ensuring their progress	29.1	29.3	29.2
Produces and uses a variety of teaching and learning resources that enhance learning, including ICT	23.9	27.0	25.3
The mentee understands how children develop and learn in diverse contexts and applies this in their teaching	24.4	17.8	21.6
Consideration of learners' cultural, linguistic socio-economic and educational backgrounds in planning and teaching	21.4	21.3	21.3
The mentee uses age- and grade-appropriate strategies to implement in the lesson	22.2	19.5	21.1
Employs instructional strategies appropriate for mixed ability, multi-lingual and multi-age classes	23.5	13.8	19.4
Sets meaningful tasks that encourage learner collaboration and leads to purposeful learning	20.5	12.1	16.9

The study examined mentees' competencies as a means of triangulating the results of the tutors as presented in Table 5 above. It emerged that among the various issues observed, mentees scored high on some issues such as creating a safe, encouraging learning environment (97.8%); teacher listening to students and giving constructive feedback (95.6%); employing a variety of instructional strategies that encourage student participation and

critical thinking (89.2%); and mentees exhibiting ethical mentor codes of conduct during lesson delivery (87.5%).

Similar to the tutors, mentees scored low on issues such as their understanding of how children develop and learn in diverse contexts and applies this in their teaching (21.6%); consideration of learners' cultural, linguistic socio-economic and educational backgrounds in planning and teaching (21.3%); producing and using a variety of teaching and learning resources that enhance learning, including ICT (25.1%); and employing instructional strategies appropriate for mixed ability, multi-lingual and multi-age classes (19.4%). The scores of student teachers' application of the NTS and the competencies appears to reflect that of their tutors. The striking differences observed in female and male tutors' demonstration of competencies is also observed among mentees. It is important that the cause of such differences is understood and addressed.

It is evident from these findings that both tutors and student teachers scored quite low on the application of the NTS generally and most of the competencies in it. These observations are not entirely surprising as this data was collected one year after the introduction of the NTS to the CoEs in 2018. As a baseline data, captured in 2019, the findings provide the basis for regular monitoring of implementation. The issues and challenges that emerged regarding the NTS implementation soon need to be looked at critically and addressed.

As shown in the data, tutors' low performance in their application of the NTS is attributed by them to the challenges they identified. The confirmation that tutors were unable to enact the NTS fully in their lessons is reflected in student teachers' scores on observed application of the NTS in their schools. This implies that any shortfalls that tutors exhibit in the application of the NTS has a great influence on the training of student teachers. It is important that challenges identified by tutors are addressed in order to support the effective implementation of the NTS.

It is important to note that the introduction of the NTS was done concurrently with the new 4-year B.Ed. curriculum. Thus, two different sets of curricula were running concurrently; that is, the old 3-year diploma in basic education for the last cohort of student teachers and the new 4-year B.Ed. programme for newly recruited student teachers. Hence at the start of the introduction of the NTS, three cohorts of student teachers were being taught two sets of curricula by the same tutors. Teaching one set of new curricula for a 4-year B.Ed. programme and another 3-year diploma in basic education curricula appear to have affected tutors' ability to apply the NTS. This has been another one of the major underlying issues that requires further study to understand the extent to which it influenced the application of the NTS.

4. Conclusion

This paper has shown how tutors and mentees understand and apply the NTS. It emerged from the study that the proportion of both male and female tutors who demonstrate understanding and application of the NTS by subject (English Language, Mathematics and Science) is not very high. The study showed that mentees demonstrated application of the NTS to some extent, but that their performance was not much different from that of their

tutors. It should be noted that the findings presented in this paper present baseline data. As such, it should be possible to introduce interventions to improve scores and ensure that the NTS is implemented more fully.

To address challenges related to lack of understanding of aspects of the NTS, the need to organise continuous PD sessions to develop the capacity of tutors is critical for effective implementation. It is equally important to particularly deepen the understanding of tutors in the implementation of all the competencies in the NTS, so that they can also translate that understanding in the training of the student teachers. It is important to take note of the striking differences observed among female and male tutors and mentees on the competencies in the NTS for the necessary and immediate action. An exploration of the underlying causes of the observed differences among males and females is required to better understand it and recommend solutions.

Midline data should now be gathered on the implementation of the NTS and other related teacher education reform policies to measure the extent of progress in line with planned recommendations.

The Covid-19 pandemic has meant a shift from face-to-face teaching to virtual learning in CoEs. Thus, consideration of how the NTS should be integrated and embedded in virtual lessons is critical for successful implementation. With the likelihood that virtual teaching and learning will continue at least to some extent after the Covid-19 pandemic, it is even more important that the integration of the application of the NTS in virtual lessons is taken more seriously.

CoEs and their mentoring universities are uniquely placed to make teacher education reform in Ghana successful, especially in implementing the NTS. However, positive outcomes are in danger of remaining marginal since some CoEs do not have the necessary resources and understanding of the philosophy and concepts in the NTS to fully implement them. Thus, further research on this topic needs to be sensitive and rigorous enough to account for wider contextual and resource needs and challenges to acknowledge their impacts directly or indirectly and effects on how tutors and student teachers apply the NTS.

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Notes

Note 1. T-TEL was a Government of Ghana programme to transform teacher education and learning with funding support from DfID between 2014 and 2020.

Note 2. There are 16 regions in Ghana. The CoEs in these regions have been zoned into five.

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