Strategies for Improving Teachers' Professional Development in Higher Education Institutions in the Southwest Region of Cameroon

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Abstract

The expansion of higher education institutions (HEIs) in Cameroon, and the continuous change in the curriculum to meet national and global needs, calls for a need for continuous professional development of teachers to handle these challenges. This study examined peer coaching and reflective teaching as strategies for improving teachers' professional development in HEIs in the Southwest region of Cameroon. Questionnaires and an interview guide were used to collect data from 409 teachers and 37 heads of departments respectively. The Spearman's rho test was used to test the hypotheses while the ordinary least square regression model was used to test the impact of reflective teaching and peer coaching on teachers' professional development. Findings revealed that peer coaching and reflective teaching have a positive and significant impact on teachers' professional development. However, the regression model shows that reflective teaching has more impact on teachers' professional development. In addition, the practice is more in the private sector than the state HEIs. Therefore, it is recommended that peer coaching should be well planned and teachers should be provided with relevant resources to carry out the activity. It is also recommended that teachers should be trained on how to carry out reflective teaching for effective practice.

Keywords: higher education, peer coaching, professional development, reflective teaching.

Introduction

Teachers are at the core of efforts to attain educational goals and objectives at all levels. Their productivity determines the productivity of the institution (Utami & Vioreza, 2021) which depends on their professional development activities (Ali & Shafeeq, 2021; Anisah et al., 2020). This has become more relevant in higher education institutions in Cameroon that are experiencing a continuous increase in student enrolment due to high rates of attendance and completion in secondary/high schools and the open-door academic policy adopted by the government of Cameroon (Mve, 2021). More so, policies on higher education institutions (HEIs) in Cameroon emphasize the professionalization of programmes (Cameroon, 1993, 2001) with the main objective to adapt curricula and related technologies to the needs of the society (Bilola & Doh, 2016). For higher education to attain these objectives, there is a need for continuous professional development of the teachers to support the complex skills students need to learn to survive in the 21st century (Darling-Hammond et al., 2017), and to handle this ever-increasing population.

The professional development of teachers has also become more relevant with regard to issues of global change that affect education, which teachers are required to implement. One such change was experienced during the COVID-19 lockdown in Cameroon, where schools had to move from traditional face-to-face teaching to online teaching and learning (Béché, 2020). The major implementers of this emergency policy were teachers who are at the centre of teaching and learning. Without adequate skills in online teaching and learning, teaching and learning will not be effective during such change. This implies that the quality of the

teacher determines the quality of education delivered which is captured in Sustainable Development Goal 4 (UN, 2019). Considering the crucial role that higher education plays in the attainment of the Sustainable Development Goals (e.g., end poverty, decent work and economic growth, responsible consumption and production, gender equality, healthy lifestyle and well-being), if quality education is to be attained (Žalėnienė & Pereira, 2021), then the continuous professional development of teachers who are the major agent of transformation cannot be overemphasized.

Maithya and Akala (2014) emphasize that not just the quality, but the number of teachers is relevant to students' performance which policy on teachers' recruitment should examine. This is because the system may have quality teachers, but aspects such as a high student-teacher ratio will negatively affect quality even if the teachers are qualified. As such, to increase the number of teachers in higher education institutions in Cameroon, the Cameroon government recruited 2,000 lecturers between 2019 and 2022 following Order No. 132/CAB/PM of 10th December 2018 to lay down the organic framework for the special recruitment of lecturers in state universities (Republic of Cameroon, 2018). This increased the teacher population from 3.2% to 8.2% (Ministry of Higher Education, 2020). In addition, other lecturers have been recruited through numerical replacement in these universities, and universities have also recruited instructors and graduate teaching assistants to assist with the teaching-learning process where appropriate. However, to sustain the productivity of these teachers, there is a need for continuous professional development to provide teachers with updated knowledge and different ways to handle challenges in the teaching-learning process (Srinivasacharlu, 2019). This is supported by Aspiration 1 of the Africa we want by 2063, which states that Africa needs well-educated and skilled citizens supported by science, technology and innovation in a knowledge society to enhance sustainable development (African Union, 2015).

It is worth mentioning that teachers in higher education institutions in Cameroon do not undergo any formal training before and after recruitment. The major consideration for recruitment is a Ph.D. degree and previous experience in teaching, research, and outreach. Having conceptual knowledge is one thing, but having the ability to transfer this knowledge is a major aspect that determines the skills acquisition and performance of learners. Also, the continuous change in pedagogy and lessons learned from the COVID-19 lockdown in Cameroon have made the continuous professional development of teachers more relevant. One of the major effects of the pandemic was low student performance due to ineffective teaching caused by inadequate knowledge of online teaching and learning (Béché, 2020; Etomes, 2022).

Previous research works on teachers' professional development in Cameroon have focused mostly on the professional needs of teachers, challenges, and solutions in basic and secondary education (Alemnge, 2020; Cameroon, 2021; Moulakdi & Bouchama, 2020). The few research works on higher education focused on the professional development of higher teacher trainers (Nwi, 2020; Wiysahnyuy, 2019). This necessitates research work on teacher professional development in higher education institutions in Cameroon.

Based on the background, the purpose of this study was to examine the various strategies that teachers can use to improve their professional development in both state and private higher educational institutions in the South West Region of Cameroon. With issues of limited resources, creating a community of learning and teaching using available organizational

resources is considered optimal for the sustainable professional development of teachers. This raised two major questions:

1. What is the influence of peer coaching on teachers' professional development in public and private higher education institutions in the Southwest Region of Cameroon?
2. What is the influence of reflective teaching on teachers' professional development in public and private higher education institutions in the Southwest Region of Cameroon?

Based on the above questions, this study examines two hypotheses that test the significant effect of peer coaching on teachers' professional development and the significant effect of reflective teaching on teachers' professional development.

Findings from this study inform current policy development for educational managers and administrators to improve teachers' professional development which has a positive spillover to the quality of teaching and learning. A comparative analysis of state and private higher education provides information on practice, advantages, and disadvantages, and complements the findings for recommendations.

Literature Review

Teachers need continuous professional development to prepare them to handle the challenges in the performance of their job. TALIS defined teachers' professional development as "activities that develop an individual's skills, knowledge, expertise, and other characteristics as teachers" (OECD 49, 2009). Teachers' professional development is an ongoing process throughout their careers that involves a holistic approach to developing a teacher as a professional practitioner (Education Brief, 2021). Reasons exist as to why the issue of teacher professional development is a constant concern for educational leaders (Moulakdi & Bouchamma, 2020). Panda (2017) sees the reflective engagement of teachers as an integral part of professional development. Reflective teaching is an important tool in practice-based professional learning settings where people learn from their own professional experiences rather than from formal learning or knowledge transfer (Priya et al., 2017). It is the ability to reflect on an action to engage in the process of continuous learning (Priya et al., 2017). Findings of the research work by Slade et al. (2019) on reflective practice in undergraduate teacher education revealed that reflective practice enhances teachers' knowledge and skills and has a positive impact on students learning. A similar study carried out by Priya et al. (2017) on how reflective practices enhance teachers' development in the Asia-Pacific region showed that reflective journal, collaborative learning, recording lessons, peer observation, and teacher educators' feedback enhance the professional development of teachers.

Apart from self-examination, teamwork is also relevant to improve on teachers' professional development. One of the collaborative methods considered for this study in enhancing teacher professional development is peer coaching which is considered one of the methods for contemporary professional development practices (Dönmez & Şahin, 2022). Peer coaching in teaching is considered an effective method for improving student learning by supporting teachers through a collaborative and reciprocal process of reflecting on, and improving, teaching practice (Charteris & Smardon, 2014). Peer coaching is defined as a collaborative teaching process involving two teachers who agree to identify areas of focused attention, observe each other's teaching practices, share ideas for effective teaching, and reflect together on the process (Sider, 2019). Such a collaborative process enables teachers to get together and share their resources, solve problems, develop working strategies, and

improve their performance (Zhang et al., 2017). So et al. (2021) recommend peer coaching for teachers to improve their planning of STEM learning especially in teaching students with special education needs. Sider's (2019) findings on the practice of peer coaching in a school in Egypt revealed that establishing peer partners, building trust between the partners, identifying specific areas to target for learning, training on non-evaluative questions and feedback, and supporting each other as new ideas are attempted are key aspects of peer coaching that need to be considered. Other peer coaching practices include lesson observation, pre- and post-observation meetings, and reflection stages (Dönmez, 2022). A similar study by Ma et al. (2018) reveals that a peer coaching-based personalized learning approach had a greater effect on teachers' performance than an expert guidance-based personalised learning approach.

Methodology

Research design. An exploratory concurrent mixed method (quantitative and qualitative) design was employed. This method enables the researcher to collect data from a larger population (quantitative) which increases the possibility to generalize the findings to a larger population, while the qualitative side provides a deeper understanding of the issue under investigation (Dawadi et al., 2021). This presents a better understanding and examination of the research problem and answers to the research questions. Data was collected and analysed concurrently while discussions complement each other, that is, qualitative and quantitative, for a better understanding of results (Ventakesh et al., 2013). The design enabled the researcher to lay the foundation of research that can lead to further research. It also suits the study because it deals with contemporary concepts such as peer coaching and reflective teaching.

Sample. The data for the study was collected in June and July of 2022, from 409 teachers and 37 heads of departments who were selected from a population of 1857 teachers and 300 heads of departments respectively. Teachers were selected using the table of Krejcie and Morgan (1970) for selecting a particular sample size for a given population. Based on this table, a sample of at least 320 is required for a population of 1,900. The study used proportionate and purposive sampling to select the total number of participants in each institution and in selecting specific participants. Only teachers with at least five years of experience were selected (purposive) while proportionate sampling ensured an equal proportion of participants in each institution. The study used purposive sampling in selecting participants for an interview. Only heads of departments with at least five years of experience were selected. The study used purposive sampling because relevant experience is needed to provide the information required for the study.

Instrumentation. A researcher-designed questionnaire with closed and open-ended questions was used to collect data from teachers, while an interview guide was used to collect data from heads of departments. The questionnaire and interview guide were designed for the research questions. One of the institutions which was part of the target population, but not part of the sample population, was used for a pilot study to test for validity and reliability. The reliability coefficient was tested using the Cronbach alpha test. The overall reliability of the instrument was 0.870 which was above the recommended threshold of 0.7. Results from the pilot study were used to restructure some of the questions to reduce ambiguity and repetition, and ensure clarification. Administration of questionnaires was done using the face-to-face approach and online using Google Forms. The online platforms used were emails and WhatsApp. The

interviews were also done using the face-to-face approach and online using Zoom meetings and phone calls.

Empirical Strategy. The quantitative data was analysed using the statistical package for social science (SPSS version 25.0) with the aid of descriptive and inferential statistics. Percentages, frequencies, and mean were the descriptive methods used. A test of normality was done using the Kolmogorov-Smirnov test to determine the formula for testing the hypotheses. Results showed that data for sub-variables significantly deviate from the normal distribution pattern (p-value<0.05) which shows an abnormal distribution pattern of the data. Therefore, Spearman's rho test, which is a non-parametric test, was used to test the hypotheses (Al-Hameed, 2022). The Ordinary Least Square (OLS) regression technique was used in running the regression analysis. OLS regression is a generalized linear modelling technique that can be used to model a single response variable that has been recorded on at least an interval scale. The technique may be applied to single or multiple explanatory variables and also categorical explanatory variables that have been appropriately coded (Hutcheson, 2011). This fits into the present study because it has categorical variables. To use the OLS technique, the values assigned to the categorical response options (VO, O, NO, NVO) were aggregated for all test items that measure the variables using the compute command in SPSS. By so doing, composite variables were generated consisting of the overall score for each participant and for each composite variable. This technique enables us to transform the values assigned to the different response options into continuous data. The model specification was the Ordinary Least Square (OLS) that was used to bring out the impact of the strategy used on teachers' professional development. The OLS regression equation is as follows:

$Y = B_o + B_1X_{1i} + B_2X_{2i} + u_i = Y_i + u$, where Y_i= professional development, B_i are OLS estimators of the corresponding population regression coefficients, B (1, 2), $u = Y_i - Y_i = Y_1 - B_0 - B_1X_{1i} - B_2X_{2i}$ are the OLS residuals (or *predicted*) values of Y_i, u= random error term. The function f $(X_{1i}, X_{2i}) = B_o + B_1X_{1i} + B_2X_{2i}$ is called the OLS sample regression function.

Data from the interview and open-ended questions were analysed using the thematic content approach with the aid of sample quotations and groundings/frequencies. The themes refer to the umbrella words which capture the main idea of the participants' statements. On the other hand, groundings/frequencies represent the number of times that a particular theme/concept surfaces from the direct statements of the participants.

Ethical Consideration. Participants' consent was solicited before participation. Each participant read the consent form and agreed to participate in the survey. Participants were not pressured to participate against their will. Participants were given at least a week and at most two weeks to respond to the survey. This gave them ample time to read the information sheet and consent form and make their decision whether to participate or not. The anonymity of participants was ensured as the names and personal characteristics of participants were not included in the presentation of results. In addition, a letter of authorization was given by the University of Buea research unit to which the researchers are attached in order to carry out this research project. This guaranteed access to other higher education institutions.

Findings and Discussion

This section presents the findings of teachers and heads of departments concerning each objective. In addition, a comparative analysis was also presented based on the objectives,

comparing the practice of peer coaching and reflective teaching in private and state higher education institutions.

Peer Coaching and Teachers' Professional Development. Findings showed that most of the teachers (n=311) consult one another when faced with challenges. Teachers are often mentored by colleagues (n=289) to acquire specific skills while experienced teachers observe their peers' teaching for guidance (n=257). This observation is usually planned by both parties on the lesson and area to observe (n=239). Another way to strengthen co-teaching is that newly recruited teachers are paired to co-teach with more experienced teachers (n=245) to improve the quality of teaching. In addition, teachers (n=296) usually have a workshop at the beginning of each academic year to gain skills for quality assurance. In summary, 65.9% of the teachers indicate that peer coaching among teachers often takes place in their school while 34.1% of the teachers said it is rarely practised in their school. However, this practice varies with school type as seen in Table 2. It is worthy of note that even with co-teaching, there is the practice of observation. This is in line with the research work of Sinem and Ahmet (2022) on peer coaching-based professional development at a university in Georgia. Findings revealed that lesson observations and pre- and post-observation meetings were an integral part of peer coaching activities that contributed to the instructional and classroom management skills of lecturers.

Table 1
Teachers' Opinions on Peer Coaching

Items	Stretched				Collapsed	
	Very often	**Often**	**Not often**	**Not very often**	**VO/O**	**NO/NVO**
Teachers consult one another when faced with challenges.	214 (48.5%)	97 (24.5%)	86 (22.1%)	13 (4.9%)	311 (73.0%)	99 (27.0%)
The mentor provides a mentorship report on the successes and challenges of the mentee.	142 (33.7%)	160 (37.4%)	85 (22.1%)	22 (6.7%)	302 (71.2%)	107 (28.8%)
We have a workshop at the beginning of every academic year for teachers to gain skills to mentor others.	235 (52.8%)	61 (17.2%)	85 (22.1%)	28 (8.0%)	296 (69.9%)	113 (30.1%)
Teachers are usually mentored by colleagues to acquire specific skills.	165 (38.7%)	124 (30.1%)	94 (23.9%)	26 (7.4%)	289 (68.7%)	120 (31.3%)
Teachers usually struggle on their own to acquire new skills.	127 (30.7%)	139 (33.1%)	70 (19.0%)	73 (17.2%)	266 (63.8%)	143 (36.2%)
Experienced teachers observe other teachers for guidance as they teach.	154 (36.2%)	106 (26.4%)	94 (23.9%)	55 (13.5%)	260 (62.6%)	149 (37.4%)
Newly recruited teachers co-teach with more experienced teachers to improve the quality of teaching.	136 (32.5%)	109 (27.0%)	119 (29.4%)	45 (11.0%)	245 (59.5%)	164 (40.5%)
We usually plan on what observation for the lesson	166 (38.7%)	73 (19.6%)	114 (27.0%)	56 (14.7%)	239 (58.3%)	180 (41.7%)

and area to observe and select the goal.						
Multiple Responses Set (MRS)	**1339 (39.0%)**	**869 (26.9%)**	**747 (23.7%)**	**318 (10.4%)**	**2208 (65.9%)**	**1065 (34.1%)**

Opinions of Heads of Departments. Sampling the voice of 37 heads of departments (HODs) on their opinion of peer coaching in higher education institutions, a majority of them (n=28) reported that peer coaching improves teachers' skills and competencies and boosts self-confidence in teachers (n=18). Peer coaching improves interpersonal relationships among teachers which enhances collaboration. Expressing this, a participant reported, *"peer coaching encourages interaction among colleagues through which ideas are shared to improve on the quality of output and students' academic performance."* Another HOD reported, *"peer coaching helps teachers to work together which promotes corporation ties among them."* This makes teachers easily identify and solve classroom problems thereby improving teachers' effectiveness and efficiency as reported by 15 HODs. In addition, peer coaching helps in better classroom management and mastery of content. As expressed by a participant, *"teachers easily identify students' challenges and put in measures to resolve them,"* while another said, *"it improves teachers' knowledge of the subject matter and common mistakes are avoided."* This finding supports that of Sinem and Ahmet (2022) who found that peer coaching activities improved the interpersonal relationship and social solidarity of lecturers and the school as a whole. Interpersonal relationship, which is a major determinant of the social capital of every institution, is relevant for the attainment of goals and objectives. As the saying goes, *two heads are always better than one*. Therefore, collaboration is the key to organizational improvement. This is in line with the research work of Abbasian and Esmailee (2018) who found a significant increase in students' achievement due to peer coaching activities.

Findings from the HODs corroborate that of the teachers as both parties acknowledged the importance of peer coaching. However, both teachers and HODs identified some challenges that teachers faced in peer coaching as seen in Figure 1.

Figure 1
Challenges Faced with the Practice of Peer Coaching
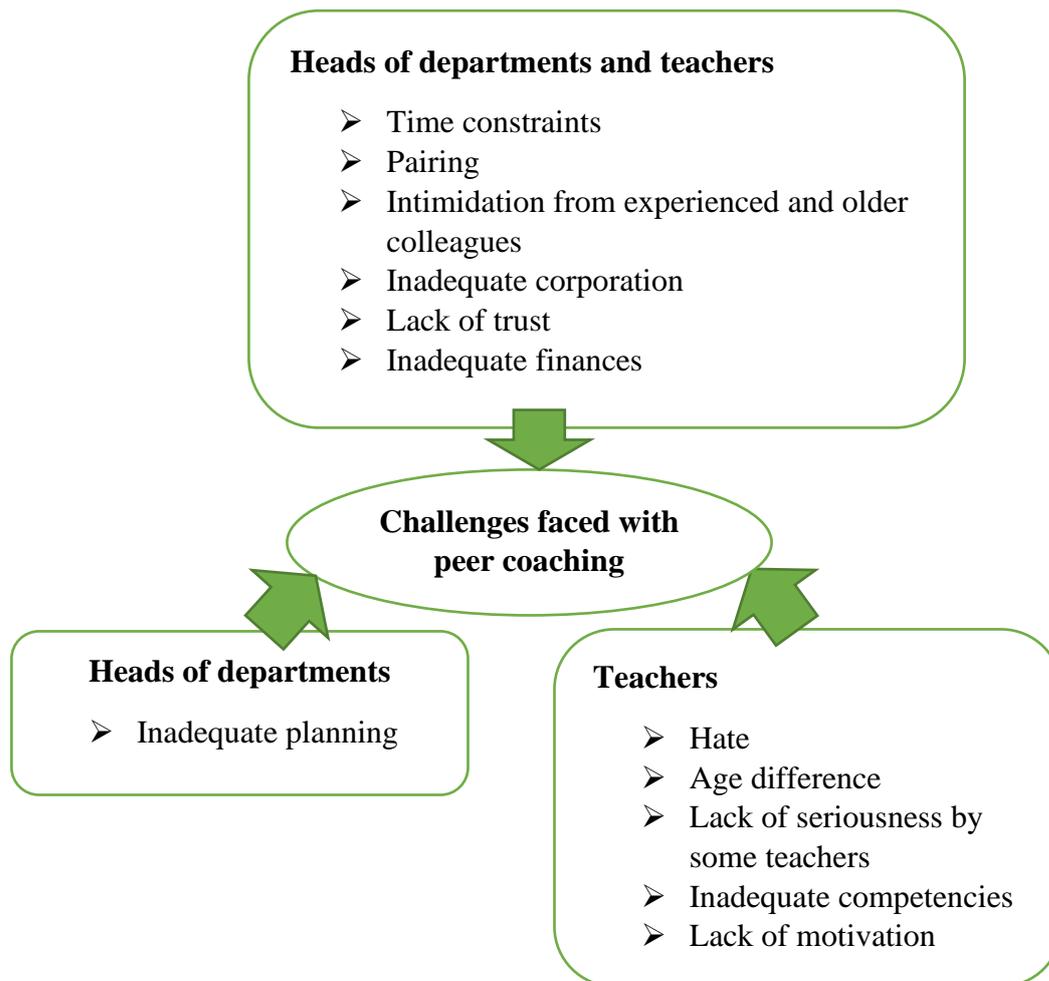
Findings from Figure 1 showed that teachers faced major challenges that hinder the effective practice of peer coaching in HEIs. It is divided into three sections, that is, similar challenges presented by both HODs and teachers, challenges presented only by teachers, and challenges presented only by HODs.

The first challenge presented by both HODs and teachers was inadequate time for teachers to undertake peer coaching which hinders their professional development. One of the major causes of time constraints is the workload of teachers, especially those who are more experienced and teach courses at the undergraduate, master's, and Ph.D. levels. The duties of supervising theses and projects at these levels, coupled with other research activities, makes time a precious commodity. In addition to this, some have posts of responsibility. As reported by some of the participants, *"the academic year is short and teachers are more focused to cover workload. This limits the time to undertake peer observation; limited time is given to showcase what is learned from the mentor."* The excess workload of teachers can also be caused by the inadequate number of teachers (Maithya & Akala, 2014) in relation to the student population.

Participants also see pairing teachers to work together as a major challenge due to compatibility issues and diversity of opinions. This leads to an inadequate cooperation as some teachers are not fully involved in the process. One of the teachers indicated, "At times,

there is disagreement in ideas and makes it difficult for a teacher to know which idea to take."
An HOD indicated, "Conflicting opinions lead to arguments and confuse teachers." In
addition, there is a lack of trust among teachers. Both teachers and HODs complain of
inadequate finances to carry out peer coaching exercises. They need didactic materials which
sometimes are not available. This discourages and demotivates some teachers.

Inadequate planning of the peer coaching activity was one of the major challenges reported
by HODs that hinder the practice. This leads to wasting time and discouraged some teachers
from further participation. As reported by one of the HODs, "Sometimes, planning is done
without consultation of some teachers and without taking into consideration the materials
needed for effective implementation."

Additional Challenges with Peer Coaching. Teachers emphasise the issue of hate among
teachers that hinders the effective practice of peer coaching. This is often caused by
comparison among teachers especially when a younger experienced colleague has to mentor
an older but less experienced colleague. This causes some teachers to shy away from such
activities which makes it difficult to organize the event. In addition, some teachers do not
take the activity seriously which affects the assiduity of others. Inadequate competencies by
some coaches discourage the practice of peer coaching. As indicated by a teacher, "Some
colleagues do not have adequate skills and knowledge to supervise. They are experienced but
lack adequate knowledge in my field of study which makes it impossible for effective
coaching." This incongruency demotivates some teachers from participating.

This finding is a continuation of Pheng's (2012) research work which found similar
challenges faced by teachers in the practice of peer coaching in Cambodia. Challenges
included a lack of time for undertaking peer observations, a lack of teaching resources, large
class sizes, and the nervousness of the teachers. Priya and Hakrob (2022) also found trust
issues and cultural aspects as major challenges of peer coaching in private higher education
institutions in Oman. Table 2 presents a comparative analysis of the practice of peer coaching
in state and private higher education institutions.

Table 2
Comparing the Practice of Peer Coaching by School Type

School type		Peer coaching		Total
		Very Often/Often	Not Often/Not very often	based
Private	N	168	50	218
	%	72.8%	27.2%	
State	N	114	77	191
	%	58.1%	41.9%	
Total	N	282	127	409

Chi-Square test =11.97, df=1, p-value 0.000

When comparing the practice of peer coaching by school type, findings showed that private
HEIs carry out peer coaching 72.8% more than state HEIs (58.1%), and the difference
between the two groups is statistically significant (p-value< 0.05). This can be justified by the
fact that the private sector has a business mindset: they need to make a profit to survive, they

can only stay in business if they have a continuous supply of students, and the quality of teachers and students' performance are some of the key factors that attract parents and students. Awan and Zia (2015) found parents' perception of school quality as one of the major determinants of private schools in Vehari, Pakistan. It is worth noting that private schools are far more expensive than public or state-owned schools which are generally free or very low in cost. As such, quality is the key to encouraging candidates to pay.

Testing of Hypothesis One (H_{o1}): There is no significant effect of peer coaching on teachers' professional development in public and private higher education institutions in the Southwest Region of Cameroon. Statistically, findings showed that there is a significant and positive relationship between peer coaching and teachers' professional development (R-value = 0.239**, p-value 0.000< 0.05). The positive sign of the correlation value implies that teachers are more likely to experience growth in their professional skills and competencies when mentored by one another. Therefore, the hypothesis that states there is no significant effect of peer coaching on teachers' professional development in public and private higher education institutions was rejected. This finding corroborates that of Priya and Hakrob (2022) who found peer coaching as a major activity for building teachers' professional capacity in Oman. It is also in the continuation of the research work of Yee (2016) who found peer coaching as an impactful tool for teachers' professional development at Taylor's College in Sri Hartamas, Malaysia. Using the collegial peer coaching model, which involved the processes of pre-observation planning and discussion, peer observation and post-observation discussion, peer coaching offered teachers the opportunity for self-reflection, sharing of classroom experiences, and mutual growth in teaching. This reduces teachers' isolation, especially newly recruited teachers who sometimes find it difficult to effectively integrate into the system. It is worthy to note that by improving teachers' competence and skills, students' performance is improved which is the key to any educational organization. If effectively practised, peer coaching provides continuous support for teachers which helps to sustain teachers' productivity. It is a formative process and not an evaluation. As such, it provides an opportunity for self-reflection and collaboration.

Table 3
Relationship between Peer Coaching and Teachers' Professional Development

Test		Peer coaching	Teachers' professional development
Spearman's rho	R-value	1	.239**
	P-value		.000
	N	409	409

**Correlation is significant at the 0.01 level (2-tailed).

Reflective Teaching and Teachers' Professional Development. Findings in Table 4 showed that a majority of the teachers (n=385) often self-assess their lessons and classroom/time management. Teachers (n=385) always think of the stated goals and objectives for each lesson they are to teach to better select instructional materials that will suit all learners. In addition, teachers (n=380) practice self-evaluation to improve teaching and learning. Also, a majority of the teachers (n=379) affirmed that they often show empathy and motivate learners in and out of class, and they personally fast-track their progress as teachers for improvement. In aggregate, 89.5% of the teachers often carry out reflective teaching practices while 10.5% of the teachers do not.

Table 4

Teachers' Opinions on Reflective Teaching

Items	Stretched				Collapsed	
	Very often	**Often**	**Not often**	**Not very often**	**VO/O**	**NO/NVO**
I self-assess my lessons as a teacher as well as my classroom/time management.	322 (76.1%)	54 (17.2%)	14 (3.4%)	10 (2.4%)	385 (93.3%)	33 (8.6%)
I always think of the stated goals of each lesson I am to teach.	298 (67.7%)	87 (24.8%)	14 (3.4%)	10 (2.4%)	385 (93.3%)	24 (5.8%)
I do practice self-evaluation to improve teaching and learning.	286 (65.0%)	94 (25.8%)	22 (6.7%)	9 (2.2%)	380 (90.8%)	29 (9.2%)
I self-reflect on selecting/developing instructional materials for each lesson.	256 (57.1%)	129 (32.5%)	19 (7.4%)	11 (3.1%)	379 (89.6%)	30 (7.3%)
I do show empathy and motivate my learners in and out of class.	244 (63.2%)	135 (21.5%)	18 (9.8%)	12 (5.5%)	379 (86.7%)	30 (7.3%)
I personally fast-track my progress as a teacher.	240 (55.2%)	123 (31.3%	38 (9.8%)	8 (3.7%)	363 (84.7) %	46 (**13.5**%
Multiple Responses Set (MRS)	**1875 (64.0%)**	**747 (25.5%)**	**213 (7.3%)**	**93 (3.2%)**	**2622 (89.5%)**	**306 (10.5%)**

Opinions of Heads of Departments. Teachers' findings are in line with that of the HODs (n=22) who agreed that reflective teaching helps in better lesson preparation and planning and also enhances the competency and skills of teachers (n=18). As indicated by one of the participants, "Reflective teaching helps in restructuring a lesson to meet the needs of students if the previous one is not well understood." Another HOD reported, "Reflective teaching has helped me to be more confident and competent. It has built my cognitive ability and enables me to recall materials." These have led to better adaptation of teaching methods and strategies (n=13) which has improved the quality of teaching and learning (n=16). As indicated by one of the HODs, "Reflective teaching exposes areas of weaknesses and enables a teacher to modify or adapt new methods to improve on the teaching-learning process for quality output." Another HOD said, "It makes me use a variety of teaching aids to facilitate learning." This fosters better student-teacher relationships because teachers work with their students to improve learning outcomes. According to Mermelstein (2018), reflective teaching provides valuable information to teachers such as a clearer picture of the classroom activities, students' behaviour, and a realistic point of view as an objective observer. However, reflective teaching is best when teachers are isolated from other educational resources and professionals to improve their performance (Gudeta & Kyriakides, 2022). The study recommended teachers' attention to continuous learning engagement to facilitate reflective learning practices. This will enable teachers to cope with the dynamic and complex nature of the teaching profession (Gudeta & Kyriakides, 2022). With the changes in the global economy coupled with crises and pandemics that are inevitable, reflective teaching is a relevant support system for teachers to improve their performance.

However, despite the overwhelming consensus that reflective teaching has great influence on teachers' work, a large gap between professed goals and the actual reflective practice of teachers remains (Šarić & Šteh, 2017). This implies that the goals and objectives of the educational system, such as the kind of skills students need to acquire, should be taken into consideration in the practice of reflective teaching. Table 5 presents a comparative analysis of the practice of reflective teaching in state and private higher education institutions.

Table 5
Comparing Reflective Teaching by School Type

School type		Reflective teaching		Total
		Very Often/Often	Not Often/Not Very Often	
Private	N	206	12	218
	%	91.5%	8.5%	
Public	N	172	19	191
	%	87.4%	12.6%	
Total	**N**	**378**	**31**	**409**

Chi-Square test =2.12, df=1, p-value 0.145

Comparing the practice of reflective teaching by school type, findings show that both teachers of private and public HEIs do not significantly differ in reflective teaching (p-value > 0.05), although teachers from private institutions (91.5%) practice it slightly more than those from public institutions (87.4%). This indicates that higher education institutions acknowledged the relevance of reflective teaching in regards to teachers' improvement. While teachers in the present study reflect on their teaching using strategies such as self-assessing lessons, classroom management, lesson objectives, and instructional materials, Priya et al. (2017) recommended the use of a reflective journal, collaborative learning, recording lessons, peer observation, and teacher educator's feedback for effective reflective practices.

Testing of Hypothesis Two (H_{o2}): There is no significant effect of reflective teaching on teachers' professional development in public and private higher education institutions in the Southwest Region of Cameroon. Statistically, findings show that there is a significant and positive relationship between reflective teaching and teachers' professional development (R-value = 0.368[**], p-value 0.000< 0.05). The positive sign of the correlation value implies that teachers are more likely to experience growth in their professional skills and competencies when they often reflect on their pedagogic practices. Therefore, the hypothesis that states there is no significant effect of reflective teaching on teachers' professional development in public and private higher education institutions was rejected. Table 6 shows the relationship between reflective teaching and teachers' professional development, while Table 7 presents the regression analysis.

Table 6
Relationship between Reflective Teaching and Teachers' Professional Development

Test	Reflective teaching	Teachers' professional development

Spearman's rho	R-value	1	.368[**]
	P-value		.000
	N	409	409

Correlation is significant at the 0.01 level (2-tailed).

Table 7

Regression Analysis Estimating the Overall Effect of Peer Coaching and Reflective Teaching on Teachers' Professional Development

	Unstandardized Coefficients		Standardized Coefficients	T	*p*-value
	B	Std. Error	Beta		
(Constant)	5.460	.354		15.426	.000
Peer coaching	.068	.018	.162	3.712	.000
Reflective teaching	.165	.025	.285	6.523	.000
R-value (multiple coefficient determination value)			.353[a]		
R Square			.124		
Adjusted R Square			.121		
Std. Error of the Estimate			1.99026		
F test			33.914		
P-value			.000[b]		

Dependent Variable: Professional development
Predictors: (Constant), Reflective teaching, Peer coaching

Statistics from the regression analysis showed that a unit of improvement in peer coaching with all other factors held constant results in a 0.162 increase in professional development at a significant level of 0.000. Similarly, a unit improvement reflective teaching with all other factors held constant results in a 0.285 increase in professional development at a significant level of 0.000. The variability explained by the model was significant (F test value =33.914, *p*-value 0.000) and, peer coaching and reflective teaching were found to affect professional development by 12.4% (R-square = 0.124). The total variability explained by the model is 35.3% (R= 0.353) while 64.6% was not explained. Findings indicate that reflective teaching has more impact on teachers' professional development than peer coaching.

Conclusion and Recommendations

Teachers' professional development is relevant for quality assurance and continuous improvement of higher education institutions. Peer coaching and reflective teaching are strategies used for teachers' professional development in the current study. Findings revealed that peer coaching and reflective teaching have a significant impact on teachers' professional development in HEIs in the Southwest Region of Cameroon. This has evidence in the quality of teachers' and students' performance. However, the practice of peer coaching and reflective teaching varies between state and private HEIs. Private HEIs significantly carry out peer coaching more than the state higher education institutions concerning co-teaching, mentorship, and classroom observation with the major objective of improving students' performance. Though providing education, private HEIs are more of a business industry than state HEIs which are guided by social policy. As such, they are stricter with policy implementation to sustain their output. The quality of teachers is one of the major deciding

factors that attract parents and learners. Also, state HEIs are more populated than private HEIs, which is more challenging to manage. However, findings showed that the practice of reflective teaching does not significantly differ between teachers in private and state HEIs. Teachers in both institutions effectively do self-assessment with respect to lesson objectives, development of instructional materials, and time and classroom management.

This study concludes that effective practice and planning of peer coaching and reflective teaching as strategies for improving teachers' professional development improve the quality of teachers' and students' outcomes. Resources are always limited. As such, institutions, especially state-owned, do not have enough resources for continuous training of teachers using workshops, seminars, and short courses which are more costly. Reflective teaching and peer coaching are strategies for professional development that are less costly but efficient. This calls for a need for leaders to strengthen the professional competencies of teachers by building a collaborative relationship for the effective implementation of the goals and objectives of education. It is recommended that peer coaching should be well planned, and teachers should be provided with relevant resources to carry out the activity. In addition, the administration, especially heads of departments, should ensure that mentees have the required skills and knowledge for effective practice. It is also recommended that teachers should be trained on how to carry out reflective teaching for effective practice.

References

Abbasian, G. & Esmailee, M.K. (2018). Peer-coaching: EFL teacher's professional identity development and students' academic achievements. *Theory and Practice in Language Studies, 8* (1), 150-163. https://core.ac.uk/download/pdf/266995076.pdf

Alemnge, F.L. (2020). The influence of teacher professional development and assessment strategies on the quality of citizenship education in secondary schools in Cameroon. *European Journal of Education Studies,7*(11), 684-701.

Al-Hameed, K.A.A. (2022). Spearman's correlation coefficient in statistical analysis. *International Journal of Nonlinear Analysis Application,13*(1), 3249-3255. https://ijnaa.semnan.ac.ir/article_6079_b33de0a741ab703e8afa7a63fc2ebfb4.pdf

Ali, S. & Shafeeq, N.Y. (2021). Professional development of teachers at higher education level - issues and challenges. *International Journal of Multidisciplinary Educational Research, 10*(7), 67-72. http://s3-ap-southeast-1.amazonaws.com/ijmer/pdf/volume10/volume10-issue7(9)/12.pdf

Anisah, Gistituati, N. & Rusdinal (2020). Analysis of factors affecting teachers' productivity. *Advances in Social Science, Education and Humanities Research, 504.*

Awan, A.G. & Zia, A. (2015). Comparative analysis of public and private educational institutions: A case study of District Vehari-Pakistan. *Journal of Education and Practice, 6* (16), 122-130. https://files.eric.ed.gov/fulltext/EJ1079988.pdf

Cameroon (2001). *Law No. 005 of 16 April 2001 to Guide Higher Education.* Ministry of Higher Education.

Charteris, J. & Smardon, D. (2014). Dialogic peer coaching as teacher leadership for professional inquiry. *International Journal of Mentoring and Coaching in Education, 3*(2), 108-124.

Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education, 2* (2), 25-36. https://files.eric.ed.gov/fulltext/ED611786.pdf

Dönmez, A.S., & Ahmet, S. (2022). Peer-coaching based professional development: A sample of a school of foreign languages. *Georgia Educational Researcher, 19* (1), 22-46. https://files.eric.ed.gov/fulltext/EJ1332366.pdf

Gudeta, D., & Kyriakides, L. (2022). Professional development through reflective practice: The case of Addis Ababa secondary school EFL in-service teachers. Cogent Education, *9*(1). https://doi.org/10.1080/2331186X.2022.2030076

Hutcheson, G. D. (2011). Ordinary Least-Squares Regression. In L. Moutinho and G. D. Hutcheson, *The SAGE dictionary of quantitative management research*, 224-228.

Intercareers. (n.d.). Professional development in teaching: Challenges and solutions. *The Cameroon Education Plan 2013-2020*. https://site-535091.mozfiles.com/files/535091/Cameroon_Professional_Development_Teaching-1.pdf

Moulakdi, A., & Bouchamma, Y. (2020). Professional development for primary school teachers in Cameroon: Is the Cascade PD Model effective? *Creative Education, 11*, 1129-1144. https://doi.org/10.4236/ce.2020.117084

Mve, J.P. (2021). Revisiting the meaning and causes of higher education massification in Sub-Saharan Africa: Evidence from Cameroon. *Open Journal of Social Science, 9*(4), 188-211. https://www.scirp.org/journal/paperinformation.aspx?paperid=108555

Ngwi, F.G. (2020). *The professional development needs of teacher educators at a higher teacher training college in Cameroon*. Community of Practice for Teacher Educators Research Report. British Council. https://www.teachingenglish.org.uk/sites/teacheng/files/Professional_development_needs_teacher_educators_HTTC_Cameroon.pdf

OECD. (2009). The professional development of teachers. In *Creating Effective Teaching and Learning Environments:First Results from TALIS* (pp. 47–86). OECD Publishing. https://www.oecd.org/berlin/43541636.pdf

Priya, M., & Hakrob, A.N. (2022). Coaching and mentoring in higher education institutions: A case study in Oman. *International Journal of Mentoring and Coaching in Education,* 1-53. https://doi.org/10.1108/IJMCE-05-2019-0060

Šarić , M., & Šteh, B. (2017). Critical reflection in the professional development of teachers: Challenges and possibilities. *Centre for Educational Policy Studies Journal, 7*(3), 67-85. https://files.eric.ed.gov/fulltext/EJ1156912.pdf

Sider, S. (2019). *Peer coaching in a school in Cairo, Egypt: Implementation, barriers, and pathways to effective adoption*. Education Faculty Publications, https://scholars.wlu.ca/cgi/viewcontent.cgi?article=1019&context=educ_faculty

Sinem, A.D., & Ahmet, S. (2022). Peer-coaching based professional development: A sample of a school of foreign languages. *Georgia Educational Researcher, 19*(1), 22-46. https://files.eric.ed.gov/fulltext/EJ1332366.pdf

So, W.W.M., He, Q., Cheng, I.N.Y., Lee, T.T.H., & Li, W.C. (2021). Teachers' professional development with peer coaching to support students with intellectual disabilities in STEM learning. *Educational Technology & Society*, *24*(4), 86-98. https://www.jstor.org/stable/48629247

Srinivasacharlu, A. (2019). Continuing professional development (CPD) of teacher educators in the 21st century. *International Journal of Education, 7*(4), 29-33. https://files.eric.ed.gov/fulltext/EJ1245169.pdf

United Nations (2019). United Nations Partnership Framework (draft document). Retrieved from 2019-23file:///C:/Users/User/Downloads/DPDCPNAM3_Draft%20UNPAF%20Namibia%2019-23_as%20of%2014%20Mar%2018.pdf (Accessed March 23, 2022).

Utami, P.P., & Vioreza, N. (2021). Teacher work productivity in senior high school. *International Journal of Instruction, 14*(1), 599-614. https://files.eric.ed.gov/fulltext/EJ1282134.pdf

Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly, 37*(1), 21-54.

Wiysahnyuy, L.F. (2019). Professional development of teacher trainers in the higher teacher training college Bambili (Cameroon). *International Journal of Humanities Social Sciences and Education*, *6*(7), 55-62. https://www.arcjournals.org/international-journal-of-humanities-social-sciences-and-education/volume-6-issue-7/6

Yee, L.W. (2016). Peer coaching for improvement of teaching and learning. *Journal of Interdisciplinary Research in Education, 6*(1): 64-70. https://pedagogyofconfidence.net/wp-content/uploads/2021/08/vol6_05.pdf

Zhang, S., Liu, Q., & Wang, Q. (2017). A study of peer coaching in teachers' online professional learning communities. *Universal Access in the Information Society*, *16*(2), 337-347. https://dl.acm.org/doi/abs/10.1007/s10209-016-0461-4

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