



The Impact of Teachers' Professional Development on their Instructional Practices in the Classroom at the Primary Level

Thinley Gyeltshen* and Tshewang Sither

Ministry of Education, Royal Government of Bhutan, Bhutan

***Corresponding Author:** Thinley Gyeltshen, Ministry of Education, Royal Government of Bhutan, Bhutan.

DOI: 10.31080/ASPE.2023.06.0598

Received: August 24, 2022

Published: March 29, 2023

© All rights are reserved by **Thinley Gyeltshen and Tshewang Sither.**

Abstract

The objectives of this research are to study the impact of professional development programmes on teachers' lesson structuring practices in the class, engagement of students within and outside the class, and the teachers' overall classroom practices in primary schools in Trashiyangtse district. The study used a structured questionnaire data set. A census survey was conducted for 158 teachers of 25 primary schools in the district. The descriptive and inferential statistics (t-test) were utilized to answer the research questions. The findings showed that there is not much impact of PD programmes on teachers' instructional practices. However, the perception result showed a need for PD programmes.

Keywords: Teacher Training Programme; Coaching; Mentoring; Induction Programme; Instructional Practices; Student-Oriented Practices

Introduction

Professional development is also known as in-service, staff development, ongoing education, training, and self-improvement [1]. The term is used to describe formal and informal learning and support activities in both external and workplace settings [2,3]. It is defined as proactive participation by competent professional teachers, administrators, and other school leaders alone or with others, for the benefit of the teacher, school, and nation [2,4].

Professional development (PD) is defined as "organized learning that alters teacher knowledge and practices and improves student learning outcomes" [5].

In Bhutan education has played a crucial role at the heart of its progress in socio-economic development and improvement of the health, welfare, and the livelihood of its people [6]. The Ministry of Education (MoE) has taken several initiatives to reform the education systems. According to the Policy and Planning Division

of MoE, one of the critical factors toward quality improvement hinges on the competencies, motivations, and commitment of the teachers [7]. Accordingly, the ministry has declared 2nd May as Teacher Development Year in 2016 coinciding with Teachers' Day. The PD should improve teachers' knowledge of the subject matter that they are teaching and it should enhance their understanding of students' thinking in that subject matter and class practices [8]. To unearth its impact on the teaching-learning practices, PD assessment in Bhutan is also inevitable. Thus, this study aims to explore the impact of teachers' PD programmes on their instructional practices in the primary schools of Trashiyangtse District.

In Bhutan, researchers have noticed major problems such as the low quality of teacher training programs, and lack of research and innovations [9]. Rinzin points out that teachers of primary schools in Bhutan have inadequate skills to deal with a child at the primary level [10]. It is also suggested that investing in teachers' PD may

enhance their instructional practices and better the students' performance. Hence, the need for studying the impact teachers with or without the PD has on their instructional practices is found necessary for schools.

Therefore, this study will investigate the impact of teachers' PD (which includes teacher learning, mentoring, and induction) on their instructional practices in the classroom at the primary level in the Trashiyangtse District.

Materials and Methods

The research method adopted in the present research is carefully designed, considering the types of respondents. All of the respondents of this research were the primary teachers of Trashiyangtse District. Besides, extra care was taken in designing the method, which went well with the place of inquiry. As the study was in the rural part of the eastern district, cooperation and information from the respondents were essential for the researchers to draw actual inferences about PD and its impact on their instructional practices in the classroom. Hence, the primary teachers' valuable participation played a pivotal role in drawing research inferences. These findings further acted as a significant outcome and substantial references for the concerned stakeholders of the schools themselves and the MoE.

Research design

Research design is the overall strategy for collecting, measuring, and analyzing data. To achieve the objective of this study, the qualitative research approach was adopted. This approach sought to answer the question of how teachers' PD programmes impacted their instructional practices in the classroom.

It found out how the primary teachers of Trashiyangtse District showed impact from either receiving or not receiving PD. The study was highly structured, and data was gathered through an online survey questionnaire. The data was collected from all the primary teachers in Trashiyangtse District.

In this study, descriptive research was used to determine the relationship between the variables. Since this research described the impact of PD programmes on teachers' instructional practices in the classroom, it specifically looked into PD's independent variables such as teacher learning, induction, and mentoring

impacting the dependent variables such as instructional practices and student-oriented practices [6].

Sampling method

The quantitative study considered all the primary teachers in the Trashiyangtse District as the target population. Hence, a census survey was adopted. The reason for using the census survey was convenience owing to the online data collection method. The survey accounted for 158 teachers as respondents from 25 primary schools in Trashiyangtse District per data provided by Dzongkhag Education Officer. All the required data were collected from the respective survey areas within the last week of September 2020.

Data collection procedure

The research used primary data. The basic data for this study came from a survey of Trashiyangtse District elementary teachers utilizing a Likert Scale-based questionnaire. Due to the current situation of COVID 19, online questionnaires were made. The questionnaires were circulated through Google forms so that the respondents could fill in their response. The online survey was the best option for the research because the target population was scattered, and the participants were all literate and had easy access to the study. Therefore, the study could easily collect the required data at minimum cost.

Data analysis

The primary data were analyzed using SPSS software. As the collected primary data was quantitative, descriptive statistics were used to describe the data. Regression correlation was used to figure out how independent variables were related to the dependent variables. The Chi-Square value was used to test the hypotheses to identify the relationship between independent and dependent variables.

Results

Table 1 gives the detail of the respondents for the study. The total number of respondents selected for the study was 71, out of which 43 were male and 28 were female. The table also depicts respondents' employment status where 50 respondents were having regular employment, and 21 were on contract. Further, the table shows that out of 71 respondents, six respondents held PgDE, 64 respondents held a degree, and one respondent is other

than the mentioned level of education. In addition, the table provides the details on respondents’ years of experience. Out of 71 respondents, 14 respondents had experienced less than one year, 45 respondents had 1-10 years, eight respondents had 11-20 years, and four respondents had 20 and above years of experience in the teaching profession.

Demographic Variables	Frequency	Percent
Gender		
Male	43	60.6
Female	28	39.4
Employment status		
Regular	50	70.4
Contract	21	29.6
level of education		
PgCHE	0	0.0
PgDE	6	8.5
Degree	64	90.1
Masters	0	0.0
Others	1	1.4
Year of experience		
Less than one year	14	19.7
1-10 years	45	63.4
11-20 years	8	11.3
20 and above	4	5.6

Table 1: Demographic Result of Respondent.

The impact of teachers’ long-term PDP on the teachers’ instructional practices and students oriented practices

The above table 2 describes the mean of instructional practices for those who attended long-term professional development programs versus those who did not. According to the statistical results, out of 15 items to measure the teachers’ instructional approaches, the means of 13 items for the teachers who attended the long-term PDPs were more significant than those who did not participate in any long-term PDPs. The sample included 16 respondents who did not participate in any long-term PDP and 55 who attended such programs. However, one response was found missing on the question related to instructional practices. Moreover, the independent sample t-test was used to assess the significance of the difference in the usage of teachers’ instructional techniques in the classroom by the teacher training.

As shown in the above table (Table 3), each item’s significant level is insignificant in most the things because the P-value is less than 0.05. However, item numbers 5, 7, and 10 only show significant P-values 0.005, 0.011, and 0.003, respectively. Item number 5 describes the ability of the teachers in students’ engagement in learning the subjects. Item number 7 represents the teachers’ ability to use various teaching aids in the classroom, and item 10 describes the teachers’ knowledge in terms of assigning different tasks to different learners. In addition, when the mean scores of these three items are compared between teachers who have attended the long-term PDPs and those who did not, the mean scores who participated in the programs are greater than those who did not, with the mean value of 4.58, 4.51 and 4.31

	Attended professional development programs on teaching practices	N	Mean	Std. Deviation	Std. Error Mean
I’m competent enough to prepare my lesson plans	Yes	55	4.62	.561	.076
	No	16	4.56	.512	.128
I’m able to identify the diverse needs of the learners	Yes	55	4.42	.599	.081
	No	16	4.00	.730	.183
I understand how to incorporate the learning outcomes	Yes	55	4.53	.539	.073
	No	16	4.38	.619	.155

I am able to define the instructions for the classroom activities clearly	Yes	55	4.67	.511	.069
	No	16	4.50	.516	.129
I keep my student engaged by interacting most of the time	Yes	55	4.58	.599	.081
	No	16	4.13	.500	.125
I create enthusiasm in class	Yes	55	4.51	.663	.089
	No	16	4.25	.577	.144
I am able to use various teaching aids	Yes	55	4.51	.573	.077
	No	16	4.06	.574	.143
I use various teaching/instructional methods	Yes	55	4.38	.652	.088
	No	16	4.19	.655	.164
I am able to cover all the topics captured in my lesson plan within the class hours	Yes	55	3.96	.793	.107
	No	16	3.69	.793	.198
I give different work to the students	Yes	55	4.31	.635	.086
	No	16	3.75	.683	.171
I give student feedback in a timely manner	Yes	55	4.53	.539	.073
	No	16	4.50	.816	.204
I use both verbal and other (written) forms of feedback systems.	Yes	55	4.62	.652	.088
	No	16	4.69	.479	.120
I implement their relevant suggestions about classroom practices and teaching.	Yes	55	4.45	.633	.085
	No	16	4.25	.683	.171
I am able to identify and help those students requiring extra attention and guidance	Yes	55	4.45	.633	.085
	No	16	4.19	.750	.188
I am able to mentor my students.	Yes	54	4.37	.708	.096
	No	16	4.25	.683	.171

Table 2: Mean score for the use of teachers' instructional practices in terms of long-term PDPs.

Independent Samples Test										
F		Levene's Test for Equality of Variances		t-test for Equality of Means						
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
1. I'm competent enough to prepare my lesson plans	Equal variances assumed	.015	.902	.356	69	.723	.056	.156	-.256	.368
	Equal variances not assumed			.374	26.38	.711	.056	.149	-.250	.361

2. I’m able to identify the diverse needs of the learners	Equal variances assumed	.318	.574	2.33	69	.022	.418	.179	.061	.775
	Equal variances not assumed			2.09	21.22	.048	.418	.200	.003	.833
3. I understand how to incorporate the learning outcomes	Equal variances assumed	.406	.526	.961	69	.340	.152	.158	-.164	.468
	Equal variances not assumed			.890	22.05	.383	.152	.171	-.202	.507
4. I am able to define the instructions for the classroom activities clearly	Equal variances assumed	.682	.412	1.18	69	.239	.173	.146	-.118	.463
	Equal variances not assumed			1.18	24.2	.249	.173	.146	-.129	.475
5. I keep my student engaged by interacting most of the time	Equal variances assumed	6.112	.016	2.77	69	.007	.457	.164	.129	.785
	Equal variances not assumed			3.06	28.75	.005	.457	.149	.152	.761
6. I create enthusiasm in class	Equal variances assumed	2.016	.160	1.41	69	.162	.259	.183	-.107	.625
	Equal variances not assumed			1.52	27.59	.138	.259	.170	-.089	.607
7. I am able to use various teaching aids	Equal variances assumed	5.870	.018	2.74	69	.008	.447	.163	.122	.771
	Equal variances not assumed			2.7	24.4	.011	.447	.163	.111	.783
8. I use various teaching/ instructional methods	Equal variances assumed	.772	.383	1.04	69	.298	.194	.185	-.176	.564
	Equal variances not assumed			1.04	24.3	.306	.194	.186	-.189	.578

9. I am able to cover all the topics captured in my lesson plan within the class hours	Equal variances assumed	.503	.480	1.2	69	.224	.276	.225	-.173	.725
	Equal variances not assumed			1.22	24.40	.232	.276	.225	-.188	.741
10. I give different work to the students	Equal variances assumed	.299	.586	3.05	69	.003	.559	.183	.193	.925
	Equal variances not assumed			2.9	23.07	.008	.559	.191	.164	.954
11. I give student feedback in a timely manner	Equal variances assumed	2.114	.150	.157	69	.875	.027	.173	-.319	.373
	Equal variances not assumed			.126	18.9	.901	.027	.217	-.426	.481
12. I use both verbal and other (written) forms of feedback systems.	Equal variances assumed	1.457	.232	-.394	69	.695	-.069	.176	-.420	.281
	Equal variances not assumed			-.467	32.9	.644	-.069	.149	-.372	.233
13. I implement their relevant suggestions about classroom practices and teaching.	Equal variances assumed	.026	.873	1.1	69	.268	.205	.183	-.161	.570
	Equal variances not assumed			1.07	23.03	.295	.205	.191	-.190	.599
14. I am able to identify and help those students requiring extra attention and guidance	Equal variances assumed	.501	.481	1.42	69	.159	.267	.188	-.107	.641
	Equal variances not assumed			1.2	21.6	.209	.267	.206	-.161	.695
15. I am able to mentor my students.	Equal variances assumed	.531	.469	.602	68	.549	.120	.200	-.279	.520
	Equal variances not assumed			.614	25.3	.545	.120	.196	-.283	.524

Table 3: P-Value for the Use of Teachers' Instructional Practice in Term of Long-term PDP.

respectively. Therefore, from this analysis, it can be concluded that the long-term PDPs influence the teachers' instructional practices in terms of students' engagement in-class activities, usage of

different teaching aid in the class by teachers, and assignment of various tasks to the students by teachers.

	Attended professional development programs on teaching practices	N	Mean	Std. Deviation	Std. Error Mean
I encourage my students to ask questions	Yes	55	4.85	.448	.060
	No	16	4.75	.447	.112
I let students to work in small group	Yes	55	4.71	.533	.072
	No	16	4.56	.512	.128
I let students practice similar task until I know that everyone understood the subject matter	Yes	55	4.58	.534	.072
	No	16	4.25	.683	.171
I encourage students to participate actively	Yes	55	4.73	.489	.066
	No	16	4.63	.500	.125
I ask open-ended questions in order to make students think critically.	Yes	55	4.67	.546	.074
	No	16	4.50	.632	.158
I assign group work to discuss and learn by themselves	Yes	55	4.64	.557	.075
	No	16	4.63	.500	.125
I let students do role-plays	Yes	55	4.31	.663	.089
	No	16	3.94	.854	.213
I let students do presentation	Yes	55	4.31	.717	.097
	No	16	4.13	.806	.202
I let students use ICT when required by the class	Yes	55	4.00	.861	.116
	No	16	3.56	.892	.223
I let students present previous lesson summary	Yes	55	4.53	.663	.089
	No	16	4.00	.816	.204

Table 4: Mean score for students-oriented practices in terms of long-term PDPs.

The above table 4 describes the means of student-oriented practices for those teachers who have attended the long-term PDPs and who have not. According to the statistical results, the mean scores of all the items for the teachers who have attended the long-term PDPs are greater than those who did not. The sample included 16 respondents who did not attend any long-term PDP and 55 who attended such programmes. However, one response was found missing on the question related to instructional practices. To be

more specific, the independent sample t-test was employed to assess whether the teacher training had a significant impact on teachers' classroom teaching techniques.

As shown in the above table 5, the significant level of each item is insignificant in most of the items because the P-value is less than

Independent Samples Test										
F		Levene's Test for Equality of Variances		t-test for Equality of Means						
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
I encourage my students to ask questions	Equal variances assumed	1.454	.232	.822	69	.414	.105	.127	-.149	.358
	Equal variances not assumed			.823	24.4	.419	.105	.127	-.157	.367
I let students to work in small group	Equal variances assumed	.578	.450	.976	69	.332	.147	.150	-.153	.446
	Equal variances not assumed			.998	25.24	.328	.147	.147	-.156	.449
I let students practice similar task until I know that everyone understood the subject matter	Equal variances assumed	.908	.344	2.05	69	.044	.332	.162	.009	.655
	Equal variances not assumed			1.790	20.61	.088	.332	.185	-.054	.718
I encourage students to participate actively	Equal variances assumed	.815	.370	.733	69	.466	.102	.140	-.176	.381
	Equal variances not assumed			.724	23.9	.476	.102	.141	-.189	.394
I ask open-ended questions in order to make students think critically.	Equal variances assumed	1.592	.211	1.074	69	.286	.173	.161	-.148	.493
	Equal variances not assumed			.990	21.9	.333	.173	.174	-.189	.535
I assign group work to discuss and learn by themselves	Equal variances assumed	.095	.759	.073	69	.942	.011	.155	-.297	.320
	Equal variances not assumed			.078	26.7	.938	.011	.146	-.288	.311
I let students do role-plays	Equal variances assumed	.020	.887	1.84	69	.069	.372	.201	-.030	.773
	Equal variances not assumed			1.60	20.5	.124	.372	.231	-.110	.854

I let students do presentation	Equal variances assumed	.512	.477	.879	69	.382	.184	.209	-.234	.602
	Equal variances not assumed			.824	22.3	.419	.184	.224	-.279	.647
I let students use ICT when required by the class	Equal variances assumed	.898	.347	1.77	69	.080	.438	.246	-.054	.929
	Equal variances not assumed			1.74	23.7	.095	.438	.251	-.082	.957
I let students present previous lesson summary	Equal variances assumed	.559	.457	2.65	69	.010	.527	.199	.131	.923
	Equal variances not assumed			2.36	21.0	.028	.527	.223	.064	.991

Table 5: t-Value for the Use of Student Oriented Practices in Terms of Long-term PDPs.

0.05. However, items 3 and 10 only show significance with the P-value 0.044 and 0.01, respectively. Item number 3 describes the ability of the teachers to let students do similar tasks to make everyone understand, and item 10 describes the teachers' knowledge in letting students recollect what they have learned in the previous lesson. In addition, when the mean scores of these two items are compared between teachers who have attended the long-

term PDPs and those who did not, the mean scores who attended the programs are greater than those who did not, with the mean value 4.58 and 4.53, respectively. Therefore, from this analysis, it can be concluded that the long-term PDPs influence the teachers in structuring students-oriented practices to make every student understand the lesson and make students revisit the lesson learned from the previous session.

F		Levene's Test for Equality of Variances		t-test for Equality of Means				
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Instructional Practices	Equal variances assumed	.001	.977	1.870	68	.066	.22809	.12199
	Equal variances not assumed			1.870	4.599	.073	.22809	.12198
Student Oriented Practices	Equal variances assumed	.037	.849	1.951	69	.055	.23898	.12249
	Equal variances not assumed			1.846	22.643	.078	.23898	.12948

Table 6: t-value for the use of Teachers' Instructional Practice and Students Oriented Practices in terms of Long-term PDPs.

Table 6 reveals that instructors who have received long-term PD or teacher training are not substantially different from teachers who have not received training in classroom instructional techniques (p

= 0.066, p = 0.055). Statistically, teachers took advantage of teacher training programs or had no impact on classroom instructional and student-centered practices.

	Received mentoring from senior teachers	N	Mean	Std. Deviation	Std. Error Mean
I'm competent enough to prepare my lesson plans	Yes	63	4.57	.560	.071
	No	8	4.88	.354	.125
I'm able to identify the diverse needs of the learners	Yes	63	4.33	.648	.082
	No	8	4.25	.707	.250
I understand how to incorporate the learning outcomes	Yes	63	4.49	.564	.071
	No	8	4.50	.535	.189
I am able to define the instructions for the classroom activities clearly	Yes	63	4.62	.521	.066
	No	8	4.75	.463	.164
I keep my student engaged by interacting most of the time	Yes	63	4.49	.619	.078
	No	8	4.38	.518	.183
I create enthusiasm in class	Yes	63	4.46	.668	.084
	No	8	4.38	.518	.183
I am able to use various teaching aids	Yes	63	4.43	.588	.074
	No	8	4.25	.707	.250
I use various teaching/instructional methods	Yes	63	4.37	.655	.083
	No	8	4.13	.641	.227
I am able to cover all the topics captured in my lesson plan within the class hours	Yes	63	3.94	.780	.098
	No	8	3.63	.916	.324
I give different work to the students	Yes	63	4.21	.652	.082
	No	8	4.00	.926	.327
I give student feedback in a timely manner	Yes	63	4.56	.532	.067
	No	8	4.25	1.035	.366
I use both verbal and other (written) forms of feedback systems.	Yes	63	4.63	.630	.079
	No	8	4.63	.518	.183
I implement their relevant suggestions about classroom practices and teaching.	Yes	63	4.40	.661	.083
	No	8	4.50	.535	.189
I am able to identify and help those students requiring extra attention and guidance	Yes	63	4.43	.615	.077
	No	8	4.13	.991	.350
I am able to mentor my students.	Yes	62	4.37	.707	.090
	No	8	4.13	.641	.227

Table 7: Mean Score for Use of Instructional Practices of Teachers in Terms of Mentoring from Senior Colleagues.

The table 7 describes instructional practices for those who received mentoring from seniors versus those who did not. According to the statistical results, out of 15 items to measure the teachers' instructional practices, the means of 11 items for the

teachers who received mentoring from seniors are greater than those who did not. The remaining four items' mean scores are greater than those who have not received mentoring. The sample included eight respondents who did not receive mentoring from

seniors and 63 who have received mentoring from seniors. However, one response was missing on a question related to instructional

practices. To be more specific, the independent sample t-test was employed to assess the difference between teachers who had mentors and those who did not.

Independent Samples Test										
F		Levene's Test for Equality of Variances		t-test for Equality of Means						
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
I am competent enough to prepare my lesson plans	Equal variances assumed	.015	.902	.356	69	.723	.056	.156	-.256	.368
	Equal variances not assumed			.374	26.3	.711	.056	.149	-.250	.361
I am able to identify the diverse needs of the learners	Equal variances assumed	.318	.574	2.3	69	.022	.418	.179	.061	.775
	Equal variances not assumed			2.0	21.2	.048	.418	.200	.003	.833
I understand how to incorporate the learning outcomes	Equal variances assumed	.406	.526	.961	69	.340	.152	.158	-.164	.468
	Equal variances not assumed			.890	22.0	.383	.152	.171	-.202	.507
I am able to define the instructions for the classroom activities clearly	Equal variances assumed	.682	.412	1.18	69	.239	.173	.146	-.118	.463
	Equal variances not assumed			1.18	24.2	.249	.173	.146	-.129	.475
I keep my student engaged by interacting most of the time	Equal variances assumed	6.112	.016	2.77	69	.007	.457	.164	.129	.785
	Equal variances not assumed			3.06	28.7	.005	.457	.149	.152	.761
I create enthusiasm in class	Equal variances assumed	2.016	.160	1.41	69	.162	.259	.183	-.107	.625
	Equal variances not assumed			1.5	27.5	.138	.259	.170	-.089	.607
I am able to use various teaching aids	Equal variances assumed	5.870	.018	2.74	69	.008	.447	.163	.122	.771
	Equal variances not assumed			2.7	24.4	.011	.447	.163	.111	.783

I use various teaching/ instructional methods	Equal variances assumed	.772	.383	1.04	69	.298	.194	.185	-.176	.564
	Equal variances not assumed			1.04	24.3	.306	.194	.186	-.189	.578
I am able to cover all the topics captured in my lesson plan within the class hours	Equal variances assumed	.503	.480	1.22	69	.224	.276	.225	-.173	.725
	Equal variances not assumed			1.2	24.4	.232	.276	.225	-.188	.741
I give different work to the students	Equal variances assumed	.299	.586	3.05	69	.003	.559	.183	.193	.925
	Equal variances not assumed			2.92	23.0	.008	.559	.191	.164	.954
I give student feedback in a timely manner	Equal variances assumed	2.114	.150	.157	69	.875	.027	.173	-.319	.373
	Equal variances not assumed			.126	18.9	.901	.027	.217	-.426	.481
I use both verbal and other (written) forms of feedback systems.	Equal variances assumed	1.457	.232	-.394	69	.695	-.069	.176	-.420	.281
	Equal variances not assumed			-.467	32.9	.644	-.069	.149	-.372	.233
I implement their relevant suggestions about classroom practices and teaching.	Equal variances assumed	.026	.873	1.11	69	.268	.205	.183	-.161	.570
	Equal variances not assumed			1.07	23.0	.295	.205	.191	-.190	.599
I am able to identify and help those students requiring extra attention and guidance	Equal variances assumed	.501	.481	1.42	69	.159	.267	.188	-.107	.641
	Equal variances not assumed			1.29	21.6	.209	.267	.206	-.161	.695
I am able to mentor my students.	Equal variances assumed	.531	.469	.602	68	.549	.120	.200	-.279	.520
	Equal variances not assumed			.614	25.3	.545	.120	.196	-.283	.524

Table 8: t-Value for the Use of Teachers' Instructional Practice in Terms of Mentoring.

As shown in above table-8, the significant level of each item is insignificant in most of the items because the P-value is less than 0.05. However, item numbers 2, 5, 7, and 10 only show significance with the P- value 0.022, 0.005, 0.011, and 0.003, respectively. Item number 2 describes the ability of the teachers to define the diverse needs of the learners. Item number 5 describes the teachers’ ability in students’ engagement in the learning activities in the classroom. Item 7 describes the teachers’ ability to use various teaching aids in the classroom, and item 10 describes the teachers’ ability to assign different tasks to different learners.

In addition, when the mean scores of these four items are compared between teachers who have received the mentoring from seniors and who have not, the mean scores who have received the mentoring from seniors show greater than those who do not, with the mean value of 4.33, 4.49, 4.43 and 4.21 respectively. Therefore, from this analysis, it can be concluded that the mentoring from seniors influence the teachers’ instructional practices in defining diverse needs of learners, students’ engagement in-class activities, usages of different teaching aids in the class, and assigning different tasks to students by teachers.

F		Levene’s Test for Equality of Variances		t-test for Equality of Means				
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Instructional Practices	Equal variances assumed	.033	.857	.578	68	.565	.09516	.16469
	Equal variances not assumed			.540	8.588	.603	.09516	.17634
Students Oriented Practice	Equal variances assumed	.215	.645	.707	69	.482	.11706	.16566
	Equal variances not assumed			.566	8.038	.587	.11706	.20683

Table 9: t-value for the Use of Teachers’ Instructional Practices and Students Oriented Practices in Terms of Mentoring from Senior colleagues.

A relevant comparison is made between teachers who got mentoring from senior colleagues and those who did not. Moreover, the independent sample t-test is utilized to assess the significance of the difference in the usage of instructors’ instructional approaches in the classroom by the mentorship.

The table 9 shows that the teachers who have received mentoring from seniors colleague are not significantly different from the teachers who have not received mentoring on their use of instructional practices in the classroom, at $p = .0565$, $p = 0.482$ level respectively, which are more than 0.05. Therefore, as per the statistical result, the mentoring program does not make any difference for the teachers in structuring the classroom’s instructional practices.

Impact of different combination of PDPs on their instructional practices in classroom

Individual PDP does not impact teachers in designing classroom instructional techniques, as illustrated in table 10. A one-way ANOVA test is used to see if different PDP combinations have an impact on teachers’ classroom instruction. Comparing mean differences of Instructional and Student Oriented Practices for groups that got varying PDP combinations is the test. Statistically, different PDP combinations had no effect on teachers’ instructional methods in the classroom at significant values greater than 0.05.

Perception of primary level teachers on PDPs

The table 11 shows the descriptive analysis of the respondent’s perception of the need for PDPs for the primary teacher. From the

Multiple Comparisons					
Dependent Variable	(I) Combination of PD	(J) Combination of PD	Mean Difference (I-J)	Std. Error	Sig.
Instructional Practices	Induction and Mentoring	Induction and PD	-.16410	.22872	.890
		Only Induction	.05812	.27838	.997
		All three programs	-.22261	.13559	.363
	Induction and PD	Induction and Mentoring	.16410	.22872	.890
		Only Induction	.22222	.31741	.897
		All three programs	-.05850	.20405	.992
	Only Induction	Induction and Mentoring	-.05812	.27838	.997
		Induction and PD	-.22222	.31741	.897
		All three programs	-.28073	.25850	.699
	All three programs	Induction and Mentoring	.22261	.13559	.363
		Induction and PD	.05850	.20405	.992
		Only Induction	.28073	.25850	.699
Students Oriented Practice	Induction and Mentoring	Induction and PD	-.22615	.22791	.754
		Only Induction	.32051	.27741	.657
		All three programs	-.17415	.13484	.571
	Induction and Long-term PD program	Induction and Mentoring	.22615	.22791	.754
		Only Induction	.54667	.31629	.317
		All three programs	.05200	.20314	.994
	Only Induction	Induction and Mentoring	-.32051	.27741	.657
		Induction and PD	-.54667	.31629	.317
		All three programs	-.49467	.25744	.229
	All three programs	Induction and Mentoring	.17415	.13484	.571
		Induction and PD	-.05200	.20314	.994
		Only Induction	.49467	.25744	.229

Table 10: One-way ANOVA for Different Combinations of PDP.

Teacher's Professional Development is necessary for primary teachers					
		Frequen- cy	Per- cent	Valid Percent	Cumulative Percent
Valid	Yes	71	100.0	100.0	100.0

Table 11: Descriptive Analysis of the Respondents' Perception on Need of PDPs.

71 respondents, all the respondents have the same perception of the need for PD for the primary teacher. As per the statistical result through frequency analysis, all the respondents perceived that the PD is essential for the primary teacher in structuring the instructional practices in the classroom.

Effectiveness of PDP in Structuring Instructional Practices in Classroom

As per the statistical result shown in table 12, 98.6% of the total respondents perceived that the PD effectively structures instructional practices in the classroom.

Professional Development programs are effective in structuring classroom practices					
		Fre- quency	Per- cent	Valid Percent	Cumulative Percent
Valid	Yes	70	98.6	98.6	98.6
	No	1	1.4	1.4	100.0
	Total	71	100.0	100.0	

Table 12: Respondents Perception on PDPs.

Discussions

The overall finding indicates no significant impact on the teachers’ performance despite attending the PDPs. However, some item analyses show a positive impact from the PDPs on the teachers’ instructional and student- oriented practices. For instance, the long-term PDPs influence the teachers’ instructional practices regarding students’ engagement in-class activities, using different teaching aids, and assigning different tasks to the students [11]. Likewise, the mentoring from seniors also influenced the teachers’ instructional practices in defining diverse needs of learners, students’ engagement in-class activities, and usages of different teaching aid in the class. Therefore, it can be concluded and recommended that the ineffectiveness of overall PDPs on teachers could be due to the low quality of teacher training programmes, lack of research and innovations [12]. Thus, reassessing and restructuring the training curriculum of educational colleges might be looked into. Besides, timely monitoring and implementation of PDPs and assessing technology and the teachers’ operating competencies are deemed necessary. The key findings, recommendations, conclusions, and limitations are discussed elaborately.

The P-value for the difference in ‘structuring instructional techniques’ between teachers who went and did not attend PDPs is 0.066. Similarly, there is no statistically significant difference between teachers who participated and did not attend the program. P = 0.55. The influence of PD on classroom practices appears to

be uneven, with data suggesting that it may not directly benefit instructors in gaining crucial instructional abilities. Another conclusion by Ingersoll and Strong is that adequate training and induction programs help teachers to maintain their jobs and boost student learning [13].

However, as per the item analysis, the long-term PDPs influenced the teachers’ instructional practices regarding students’ engagement in-class activities, usages of different teaching aids in the class by teachers, and assignment of different tasks to the students by teachers. Similarly, the PDPs also impacted the student-oriented practices to make every student understand the lesson and make students revisit the lesson learned from the previous session.

There is no significant difference between the ‘use of instructional practices’ and ‘student-oriented practices’ for teachers who received and did not receive the mentoring. The statistical result shows the P values at 0.565 and 0.482, respectively. Mentoring may be considered a critical tool to enhance teachers’ performance in their profession [14]. However, this result is in line with Everton and Smiths’ findings, which argues that having limited evidence on this is inconclusive and it rather affects teacher’s classroom management skills, time, and workload management skills [15].

However, as per the item analysis, the mentoring from seniors influences the teachers’ instructional practices in defining diverse needs of learners, students’ engagement in-class activities, usages of different teaching aids in the class, and assigning different tasks to students by teachers.

The impact could not be compared between teachers who received induction and those who did not, as all respondents received induction. However, the descriptive result indicates that the mean value for the induction program is slightly higher than the mean value for the other two programs. This finding demonstrated unequivocally that the induction program had a greater influence on rookie instructors’ teaching methods in the classroom than mentorship and long-term PDPs. This finding is consistent with Munshi, who asserts that induction programs are critical for providing immediate assistance to novice teachers, preventing burnout, shifting their mindsets toward lifelong learning, and assisting instructors in focusing on their job around

student outcomes [16]. Additionally, as Gless states, an investment in teacher quality begins early in a teacher's career and continues throughout their professional lifetime [17]. Thus, effective induction programs contribute to the transformation of school culture and the advancement of the teaching profession.

Conclusions

This paper has considered some of the critical determining factors on the impact of PDPs on the instructional practices of primary teachers of the Trashiyangtse District. Overall, PDPs had little impact on teachers' instructional approaches. The results showed no significant differences in instructional or student-focused practices between teachers who attended the program and those who did not. Even the different PDP combinations had little effect on teachers' classroom methods. The perception results suggested that teachers prefer PDPs.

Further, the item analysis in some areas showed that there was an impact on the teachers' instructional practices and the student-oriented practices. To make the PDPs impactful and more relevant, the MoE, in collaboration with the Royal University of Bhutan, may revisit/restructure the teacher training curriculum and its relevancy in the field. Timely monitoring of PDPs may help assess the implementation of the programmes. The teachers falling into the trap of old habits of teaching style despite the PDPs may need a higher level of motivation.

Acknowledgments

I would like to acknowledge all the people who have contributed to this study.

Conflict of Interests

The authors declare no conflict of interest.

Bibliography

1. Bredeson P V. "The architecture of professional development: Materials, messages and meaning". *International Journal of Educational Research* 37.8 (2002): 661-675.
2. Bolam R. "Professional development and professionalism". The principles and practice of educational management (2002): 103-118.
3. Hawley WD and Valli L. "The essentials of effective professional development: A new consensus". *Teaching as the learning profession: Handbook of policy and practice* 127 (1999): 150.
4. Gabriel R., et al. "Exemplary teacher voices on their own development". *Phi Delta Kappan* 92.8 (2011): 37-41.
5. Darling-Hammond L., et al. "Effective teacher professional development" (2017).
6. "Professional Development Training on Transformative Pedagogy". Ministry of Education (2016).
7. Policy and Planning Division Ministry of Education Royal Government of Bhutan. 31st Education Policy Guidelines and Instructions (EPGI) 2013 to 2017 (2017).
8. Riaz M. "Challenges of Professional Development of Teachers Teaching BS Four Year Program at Govt. Post Graduate College Rawalpindi: A Case Study". *Journal of Contemporary Trends and Issues in Education* 1.1 (2021): 88-113.
9. VanBalkom WD and Sherman A. "Teacher education in Bhutan: Highlights and challenges for reform". *Asia Pacific Journal of Education* 30.1 (2010): 43-55.
10. Rinzin YC. "Teachers will require master's degree in the 12th Plan". *kuensel online* (2018).
11. Castéra J., et al. "Self-reported TPACK of teacher educators across six countries in Asia and Europe". *Education and Information Technologies* 25 (2020): 3003-3019.
12. Osamwonyi EF. "In-Service Education of Teachers: Overview, Problems and the Way Forward". *Journal of Education and Practice* 7.26 (2016): 83-87.
13. Ingersoll R M and Strong M. "The impact of induction and mentoring programs for beginning teachers: A critical review of the research". *Review of Educational Research* 81.2 (2011): 201-233.
14. Svenja V., et al. "TALIS teaching practices and pedagogical Innovations evidence from TALIS: Evidence from TALIS". OECD Publishing (2013).
15. Everton T., et al. "Teachers' perspectives on educational research: Knowledge and context". *Journal of Education for Teaching* 26.2 (2000): 167-182.
16. Munshi A. "Induction programs, teacher efficacy, and inquiry practices in novice teachers". (Doctoral dissertation, San Jose State University) (2018).
17. Moir E and Gless J. "Quality induction: An investment in teachers". *Teacher Education Quarterly* (2001): 109-114.